PAINTMAN HD

EASY & SPEEDY PAINTING TOOL

RETAS! PRO is a graphic software which brings epoch-making progress for the animation fields
having been in analog technique so far into the digital realm.
Various functions and easy operation tools bring you the highest quality and efficiency that respond to professionals' strict demands.
Using this software, you can express your own imagination world just easily.
RETAS! PRO is the professional standard software for creation of animation project.

RETAS!PRO Web Site
http://www.retas.com/

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PAINTMAN HD ***User Guide***
RP156-101-1-MNL

RETAS! PRO PAINTMAN HD ***User Guide***

CELSYS

RETAS! PRO
REVOLUTIONARY ENGINEERING
TOTAL ANIMATION SYSTEM

PAINTMAN HD ***User Guide***

PAINTMAN HD

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Various functions and easy operation tools bring you the highest quality and efficiency that respond to professionals' strict demands.
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Explanatory note:

Key operations

Windows
Unless otherwise noticed, applies to all Windows models mentioned in the system requirements.

Macintosh
Unless otherwise noticed, applies to all Macintosh models mentioned in the system requirements.

Ctrl **[Ctrl] /** ⌘ **[command]**
[Ctrl] (Windows) / [Cmd] (Macintosh)

Alt **[Alt] /** Option **[Option]**
[Alt] (Windows) / [Opt] (Macintosh)

Unless otherwise noticed, the above operations are equivalent in both Windows and MacOS.

Esc **[Esc]**
Interrupts a command or operation in process.

About keyboard shortcuts

Example: [Ctrl] + [S]
Press [S] key with the [Ctrl] key held down.

Example: [Ctrl] + [Shift] + [S]
Press [S] key with both [Ctrl] and [Shift] keys held down.

About the mice

Left click / Click
Left click (Windows) / Click (Macintosh)

Right click / [Ctrl] + Click
Right click (Windows) / Click with the [Control] key held down

Unless otherwise noticed, the above operations are equivalent in both Windows and MacOS.

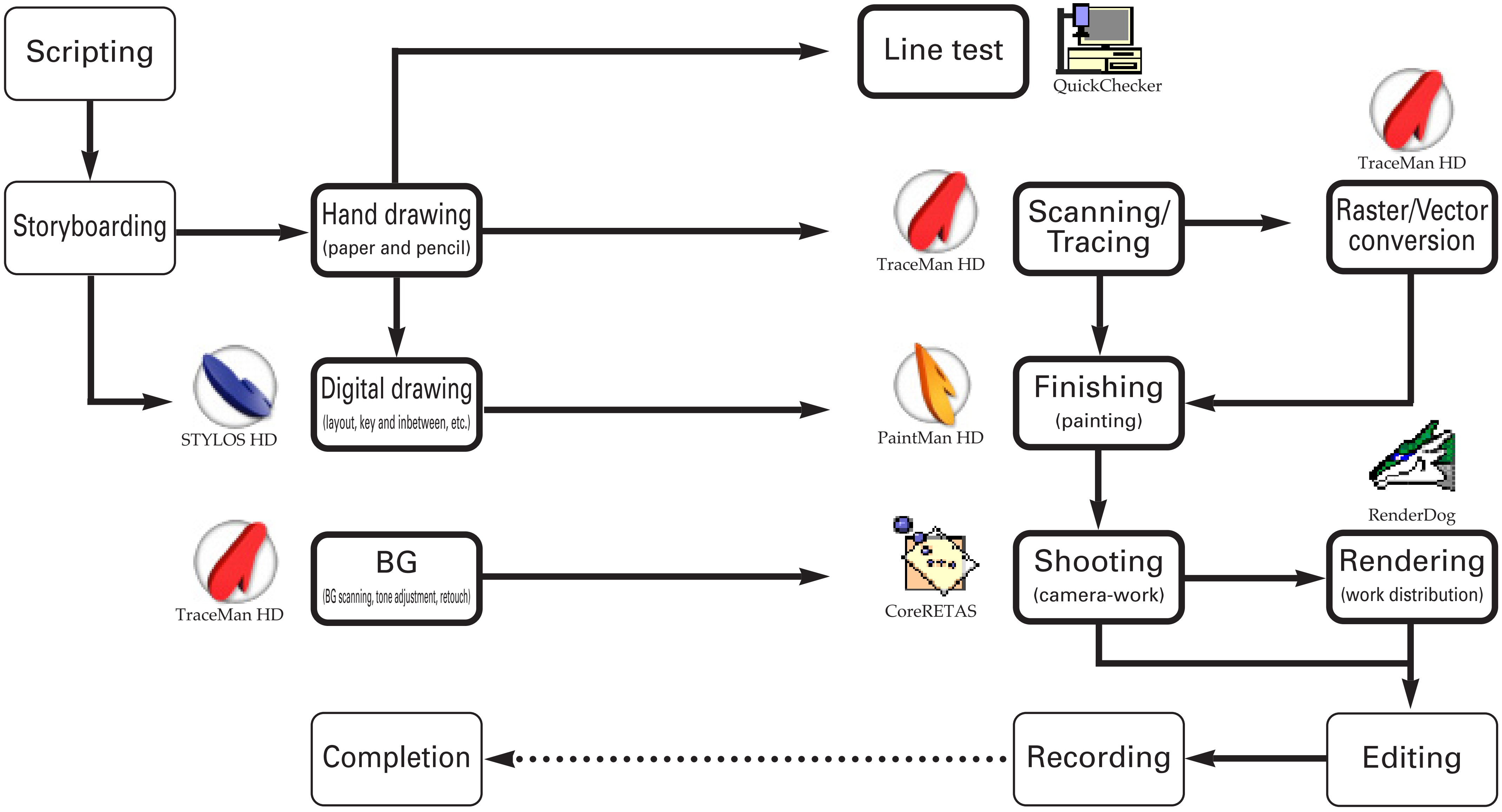
b

Chapter 1

Introduction

Workflow with RETAS!PRO

The position each of the RETAS!PRO applications occupies within an animation production workflow is as follows.

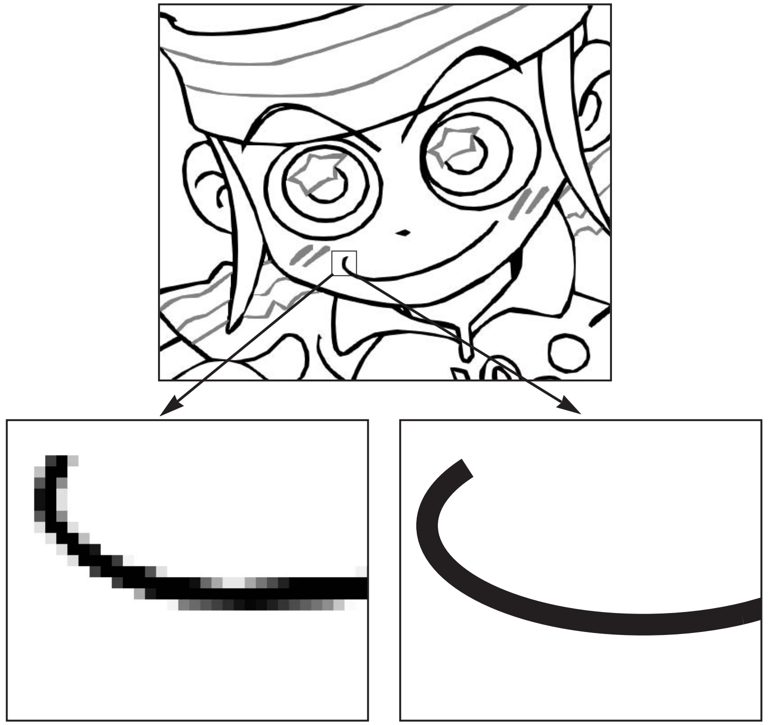

Scripting
Storyboarding
Hand drawing
(paper and pencil)
Line test
QuickChecker
TraceMan HD
Scanning/ Tracing
TraceMan HD
Raster/Vector conversion
STYLOS HD
Digital drawing
(layout, key and inbetween, etc.)
PaintMan HD
Finishing
(painting)
RenderDog
TraceMan HD
BG
(BG scanning, tone adjustment, retouch)
CoreRETAS
Shooting
(camera-work)
Rendering
(work distribution)
Completion
Recording
Editing

(as of February 2006)

RETAS!PRO basic system

Raster and Vector Formats

RETAS!PRO supports both raster and vector formats: raster for drawing simple but delicate lines, and vector for reducing or enlarging the image according to the use.



[Raster Format]
Image quality decreases when enlarged

[Vector Format]
Image quality is kept even when enlarged

1. Raster format (bitmap image)

In this format, an image is drawn using tiny dots. It is appropriate for representing subtle gradations.

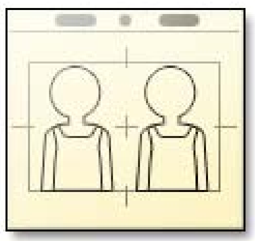
2. Vector format (vector image)

In this format, an image is drawn using lines whose detail and sharpness do not change with size. It is appropriate for giving the image a different use by reducing or enlarging.

Multi-layered Image

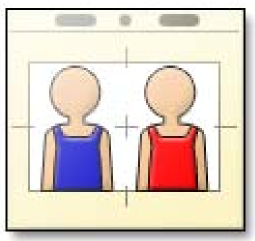
RETAS!PRO uses "layers" for managing images, where layer is an equivalent of the animation cel representing an image part such as outlines, color separation lines, etc. This management on a part basis makes possible the function that protects the outlines from being painted, and makes correction easy.

DGA format (Digital Graphic for Animation, extension: *.dga)



The multi-layer structure of RETAS!PRO is such that allows you to use both vector and raster formats on the same image.
This image format can be used only with STYLOS HD, the digital drawing software application.

CEL format (cell, extension: *.cel)



The multi-layered structure of RETAS!PRO allows you to have both vector and raster formats used on the same image.
This is an image format used mainly in post-finishing processes.

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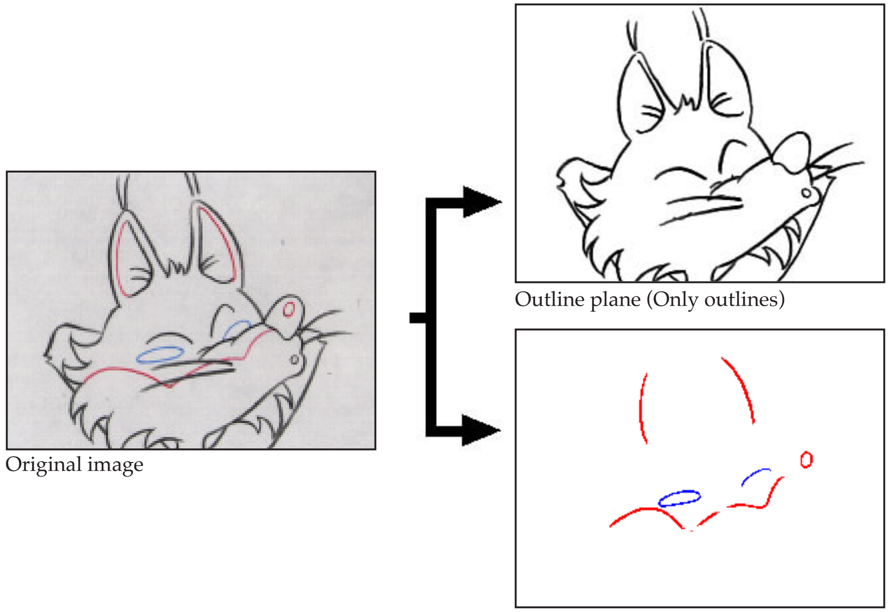
Trace (TraceMan HD)

Trace is a TraceMan HD function that separates lines from the other parts from the image of a hand drawing using paper and pencil to make it suitable for digital painting.



Original image

Outline plane (Only outlines)

Painting plane(Only color separation lines)

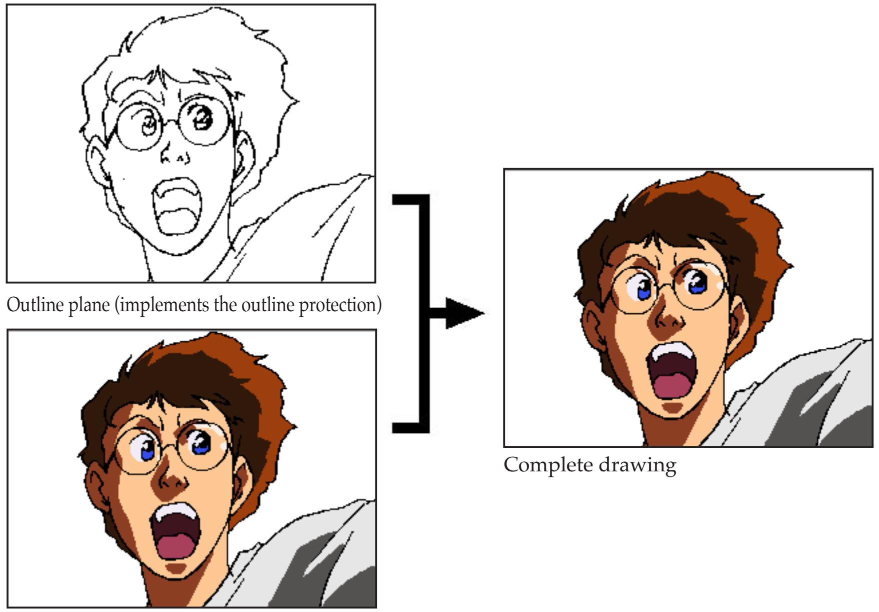
Tips

There are 3 types of trace:

Mono trace,
Gray trace, and
Vector trace

Outline Protection (PaintMan HD)

This function places the outlines on a separate layer so that correction of lines and painting can be done separately. This function simulates the way the cels are actually used.



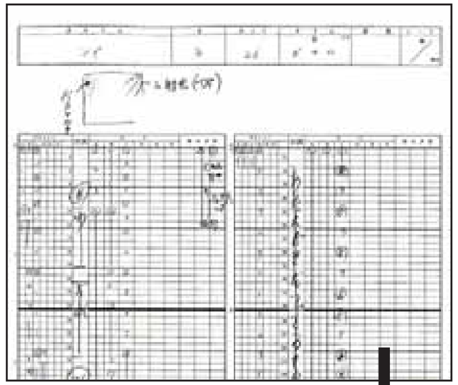
Outline plane (implements the outline protection)

Painting plane (painting is done on this plane)

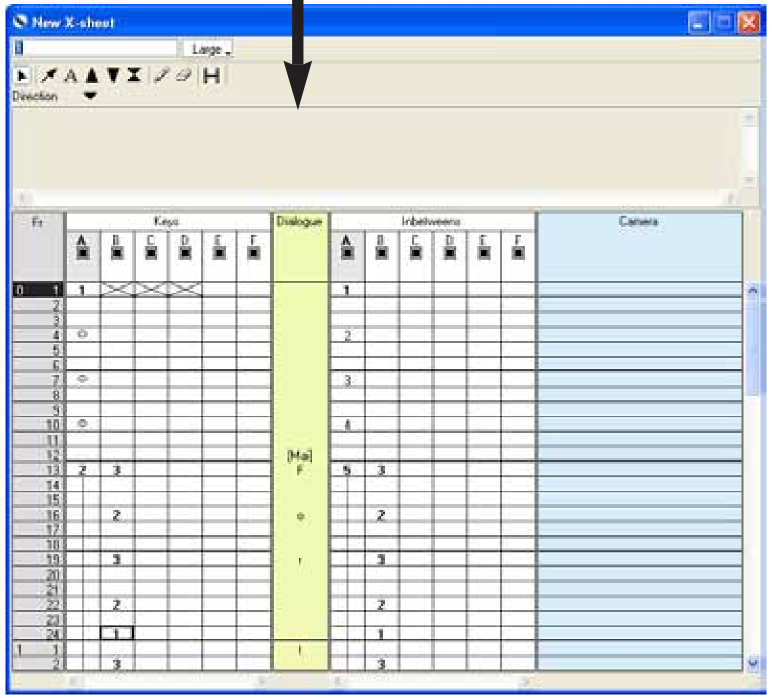
Complete drawing

Longitudinal X-sheet

The X-sheet is for managing the timing of inbetweens and BGs. This longitudinal X-sheet simulates the standard longitudinal X-sheet used in the Japanese animation industry.

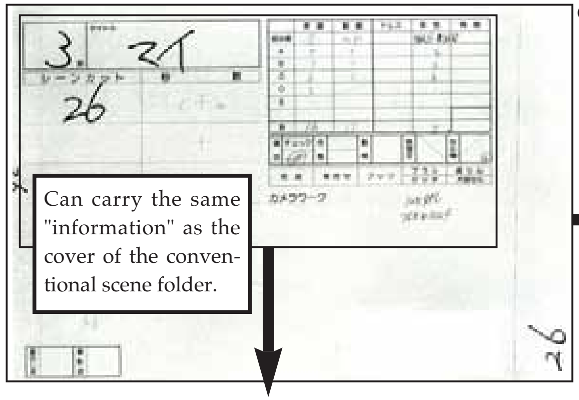


Previous X-sheet


New X-sheet
Large
Direction
Fr
Keys
Dialogue
Inbetweens
Camera
A
B
C
D
E
F
[Mai]

Storage folder resembling conventional scene folder (Scene Folder)

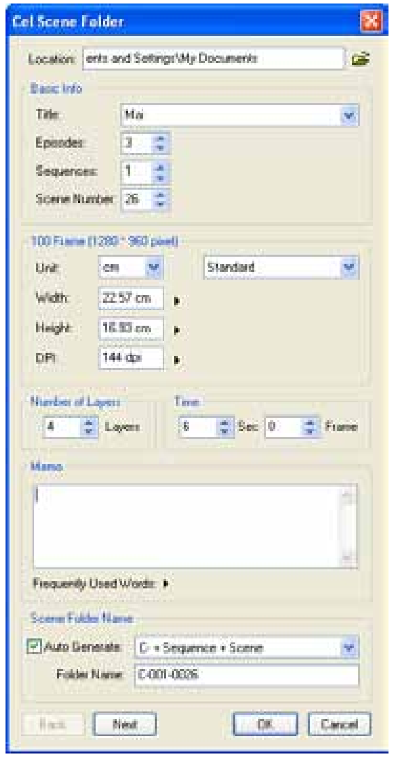
The "Scene Folder" is a software storage folder that simulates the conventional scene folder made of paper used in the animation industry to manage the layouts, keys, inbetweens, BGs, and X-sheet (*.sxf).



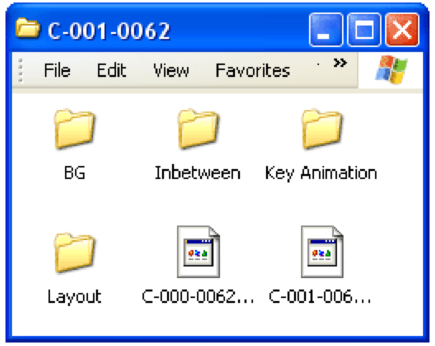
Conventional scene folder

Can carry the same "information" as the cover of the conventional scene folder.

The Scene Folder can manage "everything" that might be included in the conventional scene folder.


Cel Scene Folder
Basic Info
100 Frame (1280 * 960 pixel)
Number of Layers
Time
Memo
Frequently Used Words
Scene Folder Name
Back
Next
OK
Cancel

Location: ents and Settings\My Documents
Title: Mai
Episodes: 3
Sequences: 1
Scene Number: 26
Unit: cm
Standard
Width: 22.57 cm
Height: 16.93 cm
DPI: 144 dpi
4 Layers
6 Sec 0 Frame
☑ Auto Generate: C + Sequence + Scene
Folder Name: C-001-0026


C-001-0062
File
Edit
View
Favorites
BG
Inbetween
Key Animation
Layout
C-000-0062...
C-001-006...

Scene Folder content

Tips

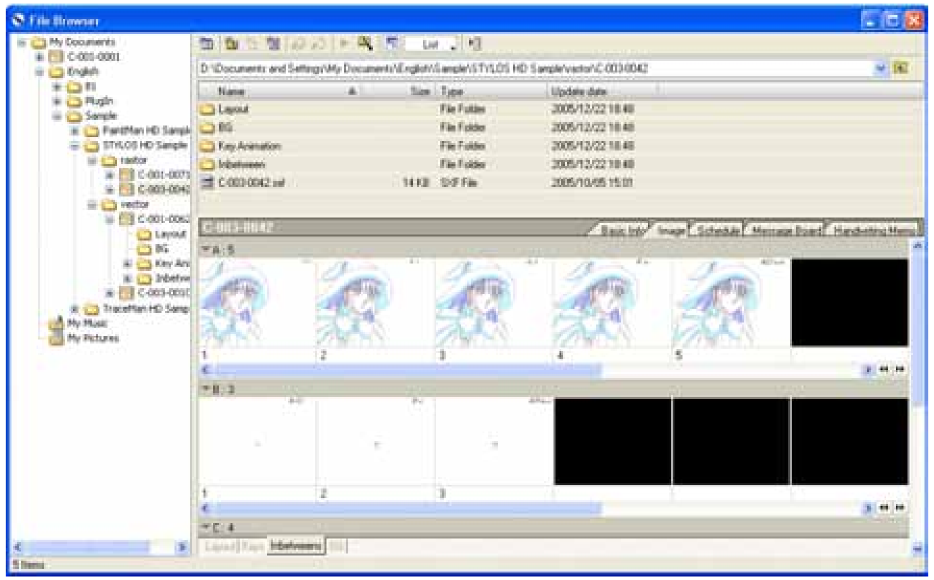
There are two types of [Scene Folder]:

The **[Drawing Scene Folder]** to keep the layouts, keys, inbetweens, and BGs used by STYLOS HD, and

The **[Cel Scene Folder]** to keep only the inbetweens used by TraceMan HD and PaintMan HD.

File Browser

This is a function for showing a list of X-sheets, layouts, BGs, keys, and/or inbetweens and browsing, or searching.


File Browser
My Documents
C-001-0001
English
Plugin
Sample
PaintMan HD Sample
STYLOS HD Sample
raster
vector
Layout
BG
TraceMan HD Sample
My Music
My Pictures
List
C-003-0042
Basic Info
Image
Schedule
Message Board
Handwriting Memo
A : 5
B : 3
C : 4
Inbetweens
5 Items

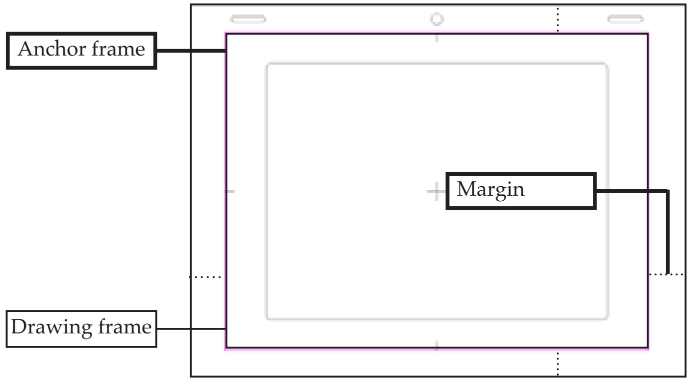
D:\Documents and Settings\My Documents\English\Sample\STYLOS HD Sample\vector\C-003-0042

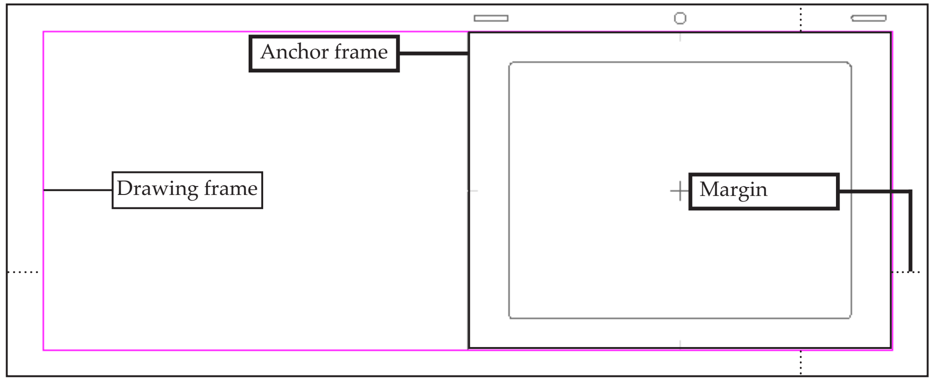
Name	Size	Type	Update date
Layout		File Folder	2005/12/22 18:48
BG		File Folder	2005/12/22 18:48
Key Animation		File Folder	2005/12/22 18:48
Inbetween		File Folder	2005/12/22 18:48
C-003-0042.sxf	14 KB	SXF File	2005/10/05 15:01

Tips

You can use the [File Browser] to register scene information, schedule management information, messages as well as handwritten memos.

Anchor Frame and Margins


Anchor frame
Margin
Drawing frame


Anchor frame
Drawing frame
Margin

[Anchor Frame] and [Margin] has been introduced into all of the RETAS!PRO HD series applications.

1. Anchor Frame

The anchor frame replaces the peg holes used for positioning the frames. In RETAS!PRO HD, each image is embedded with an "anchor frame" which is used instead of the pegbar to keep the position of images when loading them to the Light Table or when overlapping them in a Cel Stack.

2. Margin

Margin is the part outside the drawing frame. RETAS!PRO HD calculates the appropriate margin based on the "drawing frame" information embedded in the image to allow you to make use of the margin related functions.

Chapter 2

Main Features

Evolution Towards the HD Era

RETAS! PRO
PAINTMAN HD
RETAS! PRO
TRACEMAN HD
RETAS! PRO
STYLOS HD
RETAS! PRO
PAINTMAN
TRACEMAN
STYLOS HD
CELSYS

Support for Raster and Vector Formats in All Applications

- Up to the previous version, all RETAS!PRO applications except STYLOS supported only raster images.
- In the new generation RETAS!PRO, all applications are capable of handling mixed raster and vector images.
- You can choose between "vector format" for dealing with enlargement or reduction, or "raster format" for representing simple but delicate lines depending on your needs.

Scalability: from High Resolution HD Image to Low Resolution Web Animation

- Images in vector format can be used to realize "one-source, multi-use" which allows you to use the same original material in a wide range of applications with different requirements on resolution.

Deep Depth of Color: 16 bits for each RGB channel

- HD images require not only high resolution but high quality color as well.
- Effective for limiting the image quality deterioration at tone adjustment caused by the appearance of Mach bands.

Introduction of proprietary formats

- The RETAS!PRO proprietary DGA format (for drawings) and CEL format have been added to deal with the above mentioned functions.

- The DGA format can be used only with STYLOS HD, the drawing software application while the CEL format can be used with all other RETAS!PRO series applications except STYLOS HD.

- **Anchor Frame**
  "Anchor frame" is a concept introduced to position papers of diverse sizes correctly.
  With the anchor frame, the software is able to position correctly even when a mix of papers of diverse sizes is present.

- **The "Margin" Concept**
  The introduction of the "margin" concept similar to that in real papers allows you to use images drawn on the margin effectively.

Virtual Memory Engine

- An own virtual memory engine is implemented in the application, apart from the one implemented in the OS.
- This own virtual memory engine speeds up both the operation and response of each of the applications.

Multiple Undo-Redo

- Multiple operations can be undone and redone.

Shortcut Customization

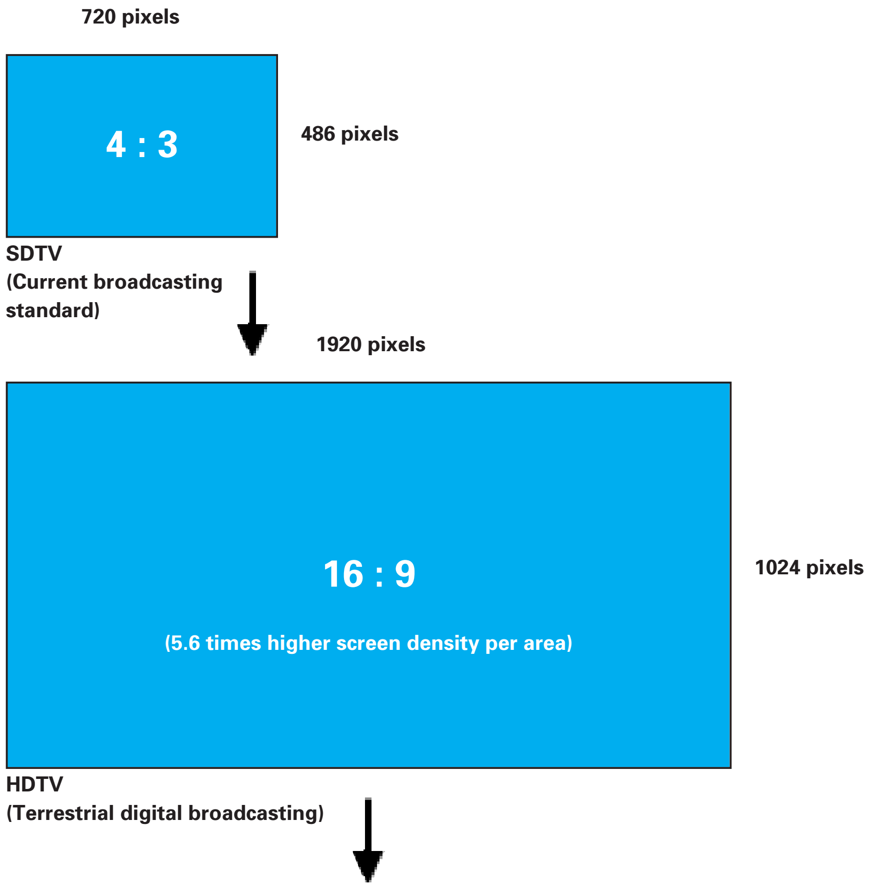
- The keyboard shortcut assignment can be edited.

Browser Window

- A file browser with links to the Scene Table, Direction, and Message Board has been implemented to facilitate selection of files and folders, selection of the saving location, and file operations.

RETAS!PRO HD Main Features

Tool for creating high resolution, high quality video image required by HD


720 pixels
4 : 3
486 pixels
SDTV
(Current broadcasting standard)
1920 pixels
16 : 9
(5.6 times higher screen density per area)
1024 pixels
HDTV
(Terrestrial digital broadcasting)

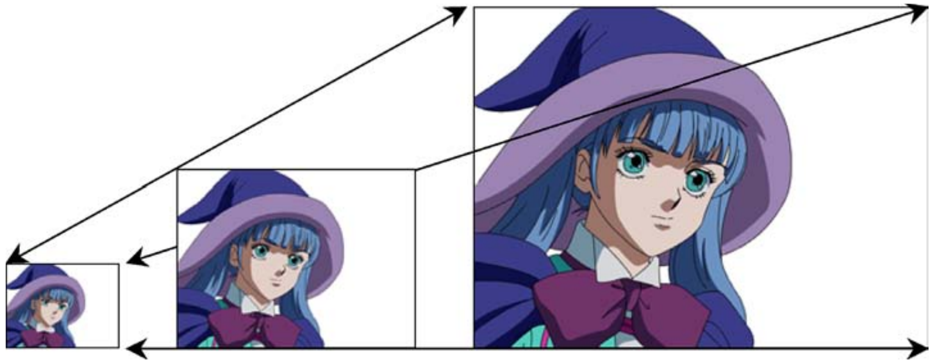
Possibilities will become limited if working only with conventional raster-based images

RETAS!PRO two approaches for dealing with the HD era

- Vector image: all RETAS!PRO applications handle vector images in addition to the raster images.
- Better screen presentation because of the support for 16 bits/channel and enhancements in the special effects.

One-source, Multi-use: from cinema animation to web animation

Reduced!	Enlarged!
Wireless content delivery services	HDTV
Flash animation	Cinema animation
Streaming	Publication



Original material

Vector images created with the RETAS!PRO HD series are scalable; allowing you to give the material a second use (multiuse), a fact of ever increasing importance in the animation industry.

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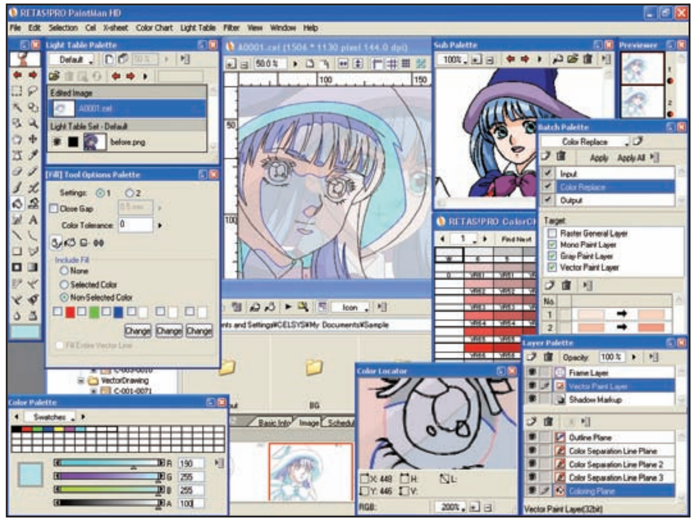
PaintMan HD: Main Features



PaintMan HD: Basic Functions

Ideal outline protection for cel painting

- Allows you to clearly separate the correction of lines and the painting of surfaces because outlines are placed on a different layer.
- This is a design that simulates the way the cels are actually used.

Gray line painting

- Allows you to paint leaving the outlines' grayscale intact so that you can reproduce delicate expressions in the inbetweens.

Easy management of large amounts of inbetween files

- Allows you to handle large amounts of inbetween files on a cel basis easily.

Sub palette for color browsing

- Allows you to open an already painted image as model so that you can find the necessary colors quickly.

Editing on the Color Locator

- Allows you to edit on an enlarged image directly on the color locator so that you do not the need to enlarge the image separately.

Various special painting functions

- "CloseFill", "AutoFill" and other special functions make it easier to paint on a pixel basis which allows you to paint more efficiently. Also, the "Airbrush Effect" allows you to achieve a uniform airbrush effect quickly.

Light table

- Allows you to overlap images semi-transparently so that you can make corrections by referring to previous and subsequent inbetweens.

PaintMan HD: New Functions

Improved effects

- Improved brush and airbrush functions
- High quality brush with transparency

Gradient, airbrush effect

- Gradient with 3 or more colors and transparency

Improved paint function

- Tiny holes do not cause paint leak any more.
- Allows you to paint with semi-transparent colors as transparency is implemented on the color itself.

Improved color picking

- Allows you to paint by picking colors from the light table using one-click operations.
- Color picking on a layer (plane) basis

Improved color styling functions

- Creation of color chart from a painted image
- Creation of ColorReplace file from the comparison of two images

Improved eraser function

- Allows you to erase even if lines (vector lines) are overlapped
  1. The segment between intersections by just touching a part
  2. Erase only the touched line
  3. Have a clean cut section

Vector line color change

- Allows you to draw color separation lines for "sweat", for example, very simply.

Blur

- Allows you to add blur by dragging.

Stamp

- Allows you to copy a part of an image.

Editable X-sheet

- X-sheet assemblage is possible even at the painting stage if separation into layers becomes necessary during painting.

Out-of-Range color warning

- Allows you to get a warning when a color out of the NTSC range is used.

Editable alpha channel

- Transparency can be set using the image's alpha channel.

Backward compatibility

Backward compatibility (data exchange with previous versions)

- RETAS!PRO HD series is NOT a software that only handles proprietary (DGA, CEL) formats.
- RETAS!PRO HD series is designed with consideration to compatibility with older versions both from data and workflow point-of-view which are very important to the studios producing animation professionally.

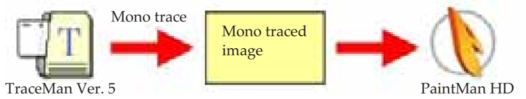
Possibility of using the conventional mono traced image workflow only

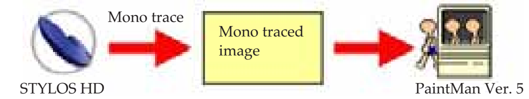
- RETAS!PRO HD can be placed in a workflow implemented with older versions of RETAS!PRO, or place Ver. 5 series in a workflow implemented with RETAS!PRO HD by limiting the used images to mono traced images in general image format (e.g., TGA).

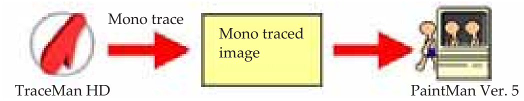
Support for mixed conventional and HD series environment

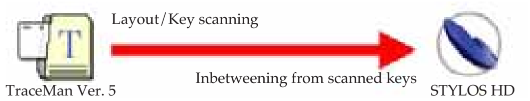
Migration from older versions to HD series can be gradual.

Example: Either of the following workflows is possible.


Mono trace
Mono traced image
TraceMan Ver. 5
PaintMan HD


Mono trace
Mono traced image
STYLOS HD
PaintMan Ver. 5


Mono trace
Mono traced image
TraceMan HD
PaintMan Ver. 5


Layout/Key scanning
Inbetweening from scanned keys
TraceMan Ver. 5
STYLOS HD

RETAS!PRO

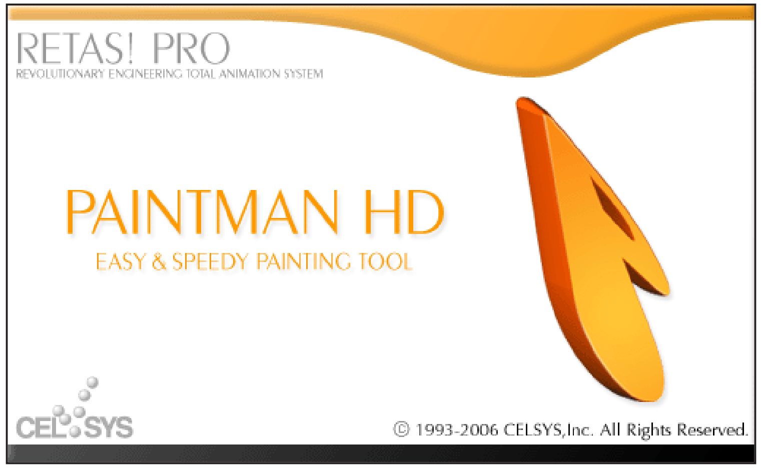
Chapter 3

Quick Guide

Preparations

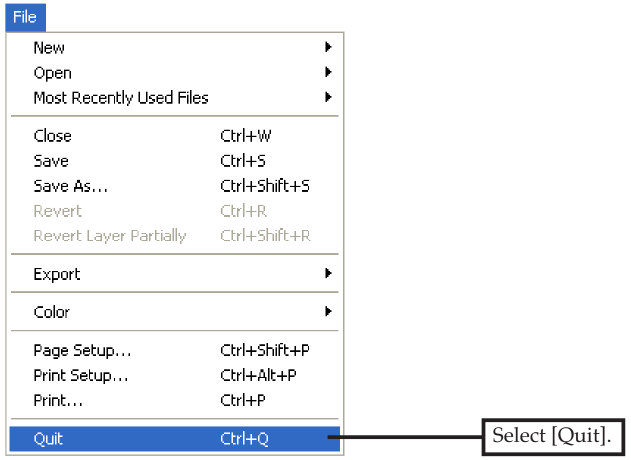
Starting PaintMan HD

To start, double click the PaintMan HD icon. The startup screen appears when the application program starts.


RETAS! PRO
REVOLUTIONARY ENGINEERING TOTAL ANIMATION SYSTEM
PAINTMAN HD
EASY & SPEEDY PAINTING TOOL
CELSYS
© 1993-2006 CELSYS,Inc. All Rights Reserved.

Quitting PaintMan HD

To quit, select [Quit] under [File] menu (Windows) or under the application menu (Macintosh).

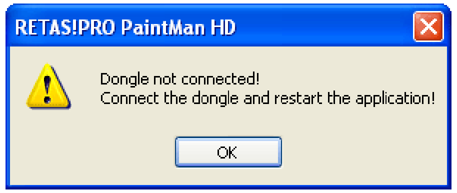

File
New
Open
Most Recently Used Files
Close Ctrl+W
Save Ctrl+S
Save As... Ctrl+Shift+S
Revert Ctrl+R
Revert Layer Partially Ctrl+Shift+R
Export
Color
Page Setup... Ctrl+Shift+P
Print Setup... Ctrl+Alt+P
Print... Ctrl+P
Quit Ctrl+Q

Select [Quit].

(Example from Windows.)

Dongle check

If the following warning dialog box appears instead of the startup screen, quit the system and check whether the dongle is inserted correctly.


RETAS!PRO PaintMan HD

Dongle not connected!
Connect the dongle and restart the application!

OK

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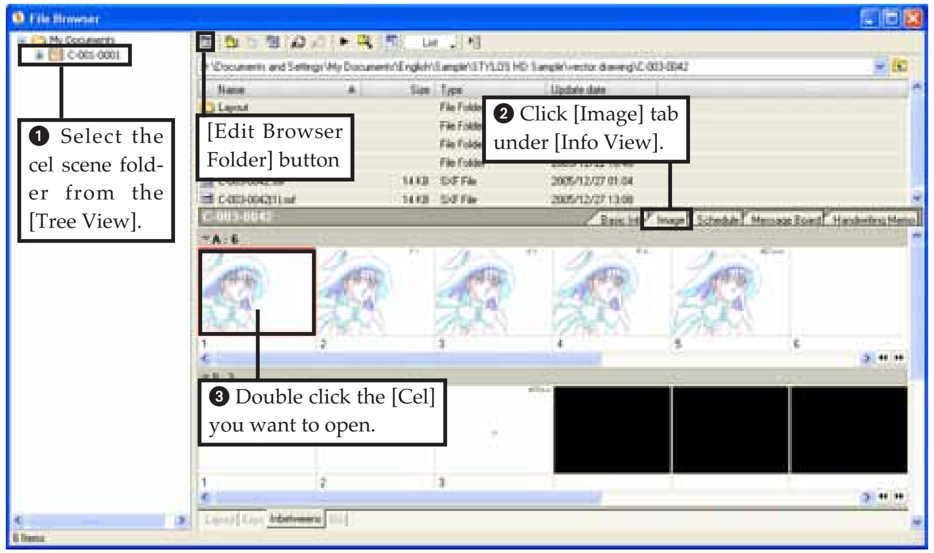
Loading an image

The procedure for opening the file browsing tool (file browser) is as follows.

1. Open the file browser

Select [File Browser] from the [Window] menu to open the file browser.



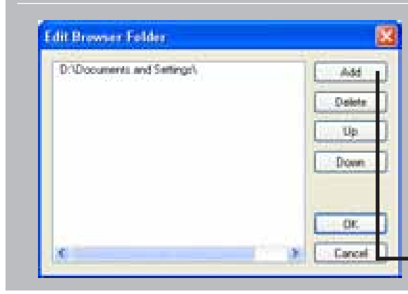
❶ Select the cel scene folder from the [Tree View].

[Edit Browser Folder] button

❷ Click [Image] tab under [Info View].

❸ Double click the [Cel] you want to open.

Tips

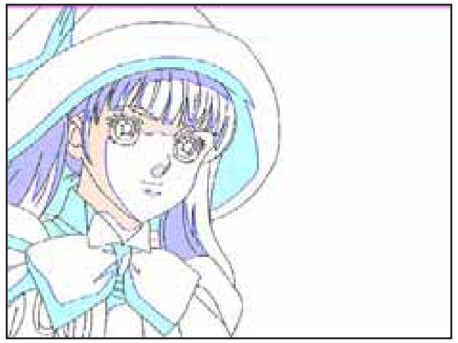


The file browser can show only the tree under the target and configured folder.
Clicking the [Edit Browser Folder] button on the File Browser shows the dialog box at the left.

Click [Add] to add a target folder in the [File Browser].

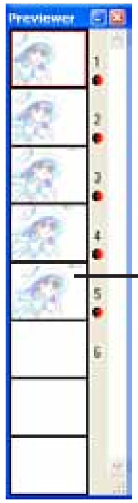
2. Open the Cel window.

The [Cel] window opens.



3. Open the File Previewer.

Opening the [Cel] window shows the cels in the same cel folder in the [File Previewer].



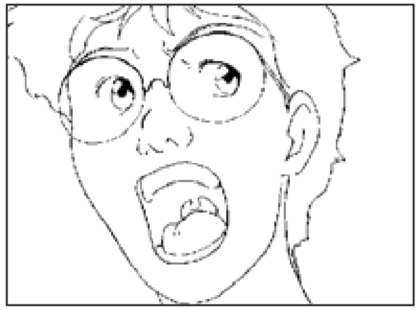
Clicking a frame shows the image in the [Cel] window.

Types of painting data

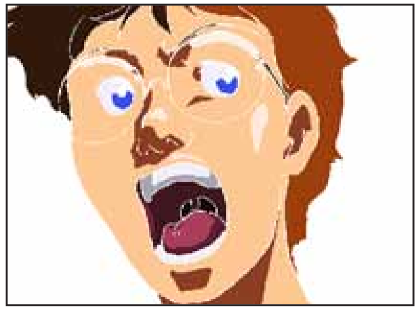
Painting data has a layered structure composed of multiple planes and are classified as follows.

1. Mono paint layer

Data composed of a mono outline plane and a painting plane. Data volume is relatively small.



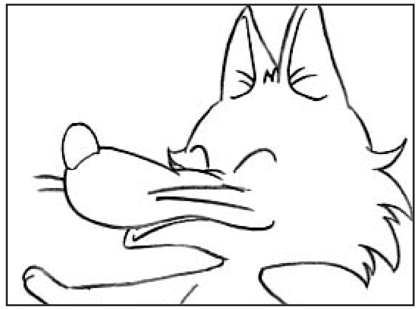
Outline plane (mono)



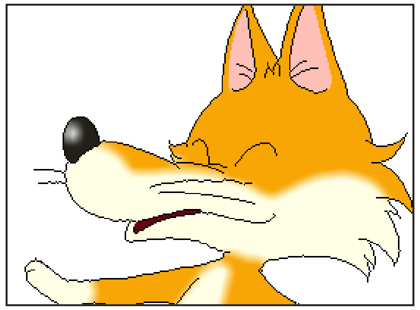
Painting plane

2. Gray paint layer

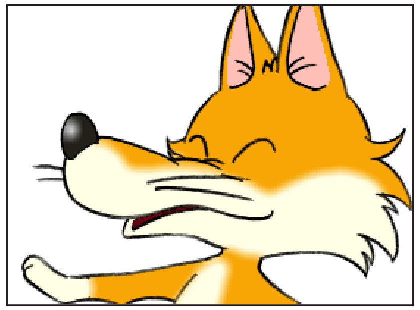
Data composed of a gray outline plane and a painting plane.
The outline can be expressed using a grayscale. Data volume becomes relatively big.



Outline plane (grayscale)



Painting plane (border line, painting)



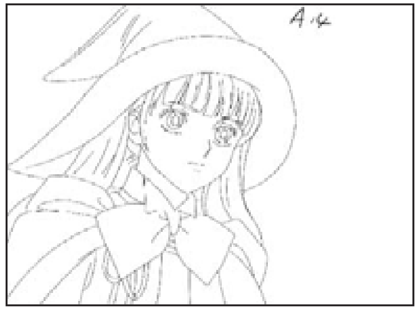
(Composite image)

Tips

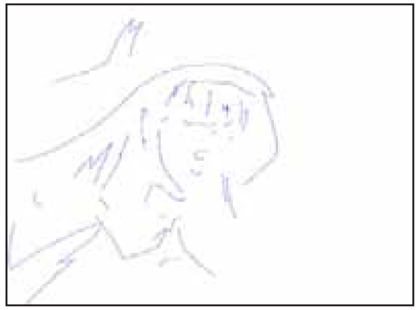
Painting areas are defined using "border lines" on the grayscale painting plane because the grayscale outline plane cannot have functions for color outlines implemented on it.

3. Vector paint layer

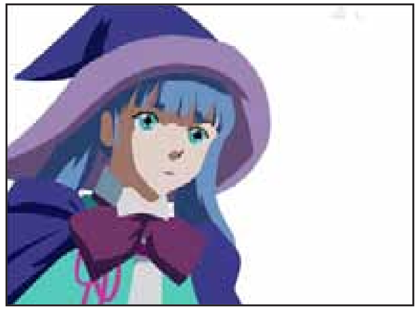
Data composed of a vector outline plane and a vector painting plane.
Quality of the lines is not compromised even if the image is enlarged. Data volume is relatively small.



Outline plane (vector)



Color separation line plane (vector)



Coloring plane (vector)

Tips

The [Painting Plane] for vectors is composed of a [Color Separation Line Plane] for color separation lines and a [Coloring Plane] for surface painting.

Correcting lines

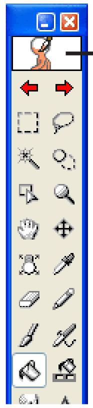
Switching planes

This section describes the procedures to join the lines that were cut, or remove the dust that were input as a result of the inbetween scanning.

As outlines and color separation lines are placed in separate planes in RETAS!PRO, you need to switch planes to do the corrections.

1. Switch the edit mode.

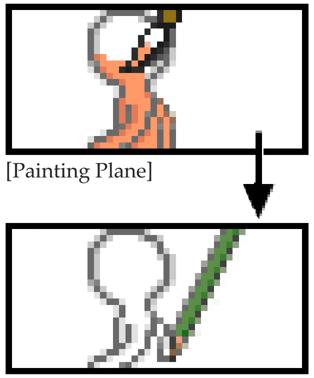
Open the [Tool Palette] from the [Window] menu.



Click the [Edit Mode Switch] button.

2. Switch the plane.

Planes are switched.

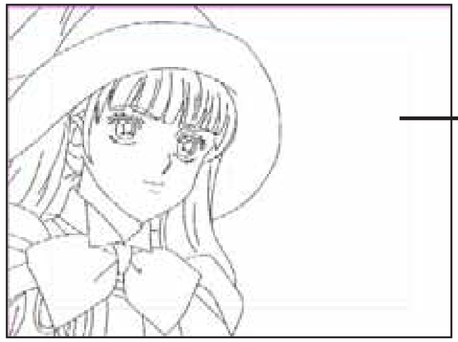


[Painting Plane]

[Outline Plane]

3. View the outline plane.

In the [Cel] window, only the outlines are shown.



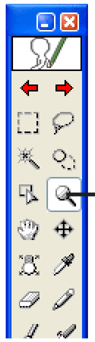
In outline layer edit mode, it is possible to correct only the outlines as the color separation lines are hidden.

Zooming in the screen (Zoom tool) Z

The procedure for zooming in the screen because the part you want to work with is small and therefore, difficult to work with is as follows.

1. Select Zoom tool.

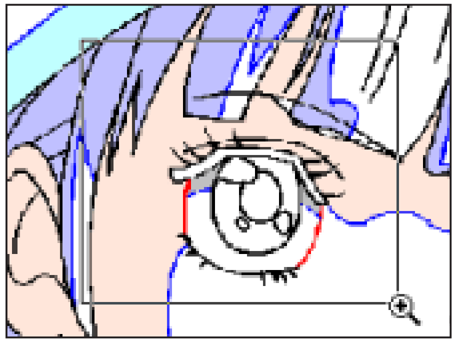
Select [Zoom] tool from the [Tool Palette].



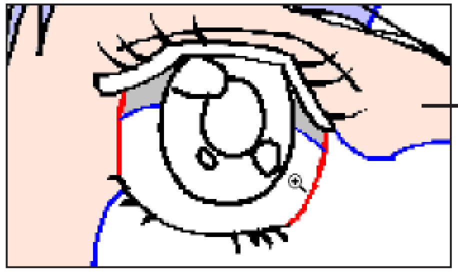
[Zoom] tool

2. Select the area.

Select [Zoom In with Drag] on the tool options palette and drag the area you want to zoom in.



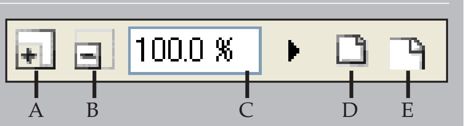
3. Completion



The screen image is shown enlarged.

Tips

- Click with the [Alt/Opt] key held down to reduce the screen image.
- There are alternative ways to scale the screen image:
  - Pressing [Ctrl/Cmd] and [+] keys simultaneously (zoom in)
  - Pressing [Ctrl/Cmd] and [-] keys simultaneously (zoom out)
  - Using the tool bar (Zoom In/Out icons)
  - Selecting [Scale] from the [View] menu



A [Zoom In]
B [Zoom out]
C [Scale]
D [Fit on Screen]
E [Actual Pixels]

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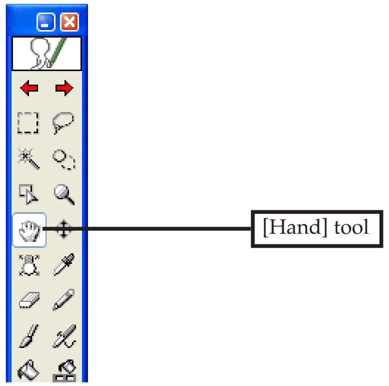
Moving the screen (Hand tool) H

The procedure for moving the screen because the part you want to work with is hidden is as follows.

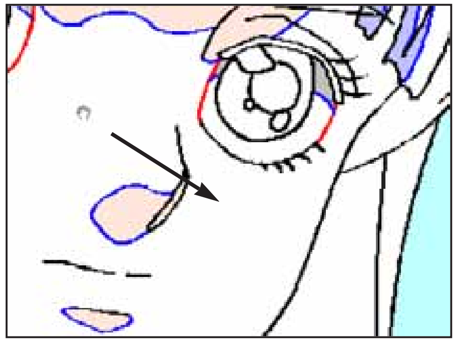
1. Select Hand tool.

Select [Hand] tool from the [Tool Palette].



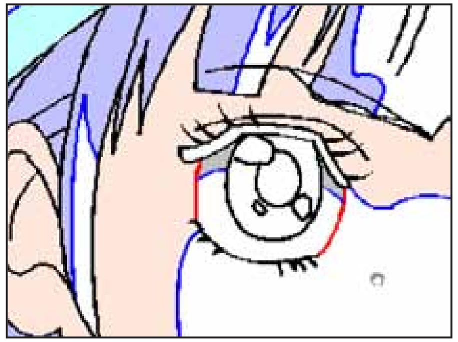
2. Drag on the screen.

Drag on the screen you want to move.



3. Completion

The image on the screen is moved.



Tips

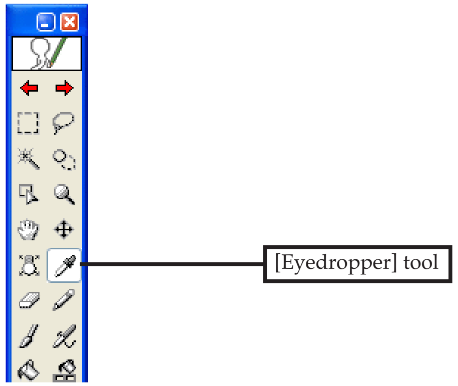
You can switch the tool with which you are working to the [Hand] tool by pressing the [Ctrl/Cmd] key. (The [Hand] tool is enabled during the time you have the [Ctrl/Cmd] key held down)

Specifying the outline color as the foreground color (Eyedropper tool) S

The procedure for specifying the color of the outline as the current [Foreground Color] for repairing the outlines using any of the drawing tools is as follows.

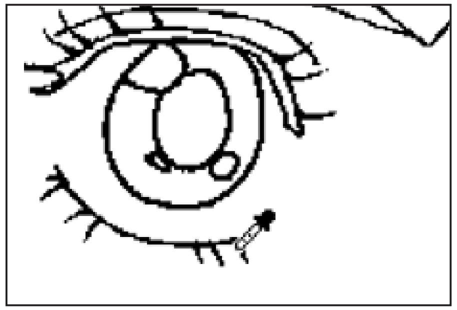
1. Select the Eyedropper tool.

Select [Eyedropper] tool from the [Tool Palette].



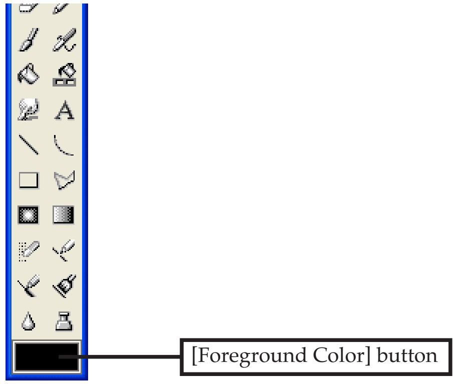
2. Get the color.

Put the mouse pointer on any part of the outlines shown on the screen and click.



3. Completion

The [Foreground Color] button on the [Tool Palette] becomes the selected color.



Tips

You can switch the tool with which you are working to the [Eyedropper] tool by pressing the [Alt/Opt] key. (The [Eyedropper] tool is enabled during the time you have the [Alt/Opt] key held down)

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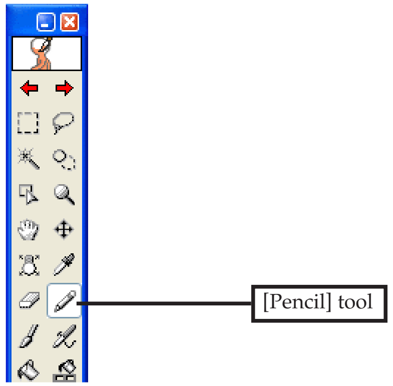
Adding by the dot (Pencil tool) P

The procedure for making additions to an outline by the dot using the [Pencil] tool on the [Tool Palette] is as follows.

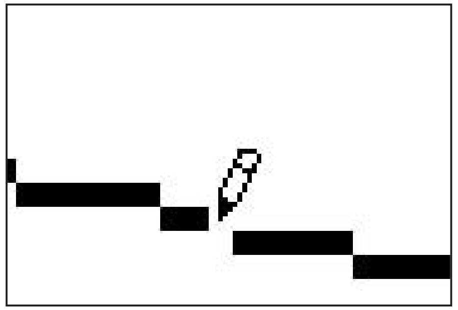
1. Select Pencil tool.

Select [Pencil] tool from the [Tool Palette].



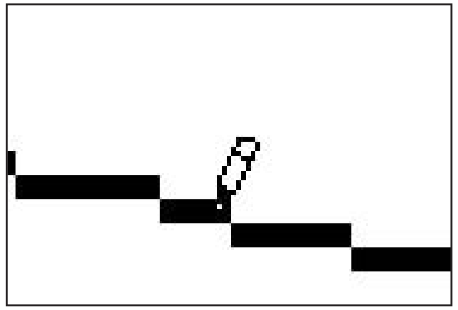
2. Drag the area where you want to make an addition.

Drag the area where you want to make an addition in the line.



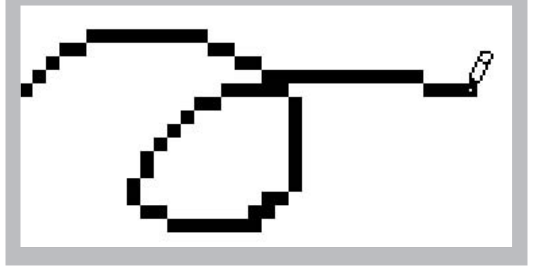
3. Completion

The additional line is drawn.



Tips

- On the [Gray Paint Layer], a line drawn with the [Pencil] tool becomes an anti-aliased 1-dot line of pen size.
- The [Pencil] tool cannot be used in the [Vector Paint Layer].
- The [Pencil] tool becomes [Eraser] if the clicked pixel has other than the foreground color. (Auto-erase function: can be disabled by using the [Shift] key.)

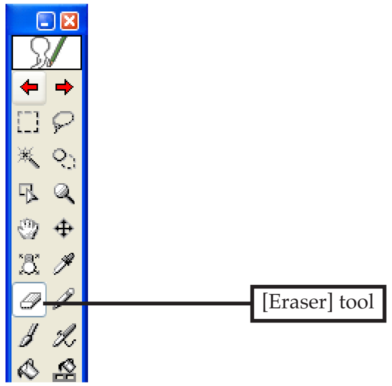


Removing away dust (Eraser tool) E

The procedure for removing away small dots that were input as a result of the scanning from the active plane is as follows.

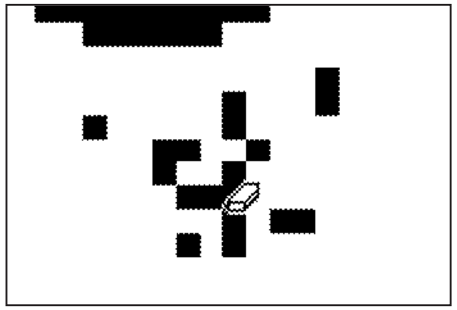
1. Select Eraser tool.

Select [Eraser] tool from the [Tool Palette].



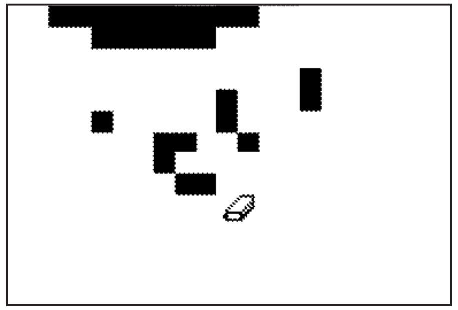
2. Drag on the target area.

Drag on the area where you want to erase.



3. Completion

Dust is removed.



Tips

Press [Alt/Opt] key to reduce the mouse pointer size.

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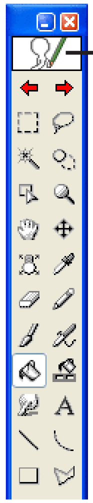
Painting

Switching planes

For painting, you need to switch the plane to [Painting Plane] and do the corrections there.

1. Switch the edit mode.

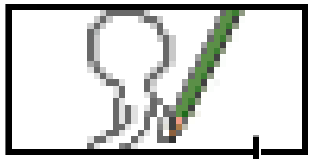
Open the [Tool Palette] from the [Window] menu.



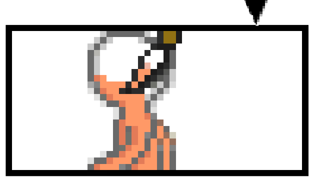
Click the [Edit Mode Switch] button.

2. Switch the plane.

Planes are switched.



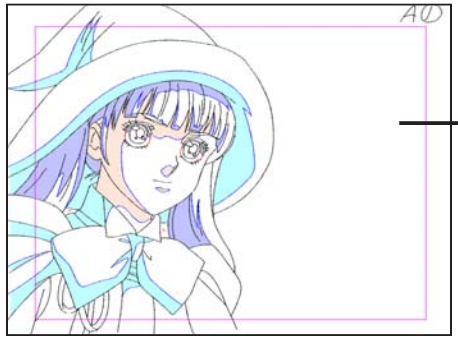
[Outline Plane]



[Painting Plane]

3. Open the Painting plane.

In the [Cel] window, the color separation lines are shown.



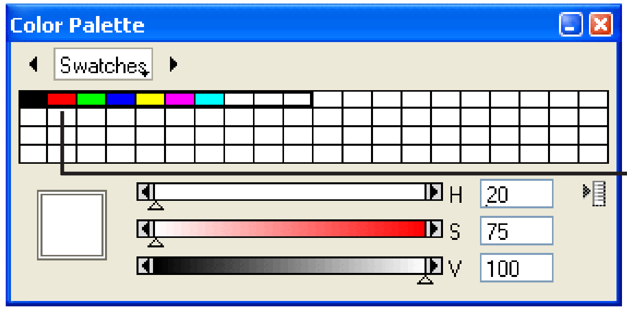
In painting layer edit mode, the color separation lines are made visible for you to paint.

Picking colors (Color palette) F7

The procedure for picking a color from the [Color Palette] for painting is as follows.

1. Open the Color Chart.

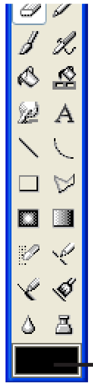
Select [Color Palette] from the [Window] menu to open the [Color Palette].



The mouse pointer changes to Eyedropper automatically when placed on the [Color Palette]. Click on the [Color Palette] to pick the color.

2. Set the foreground color.

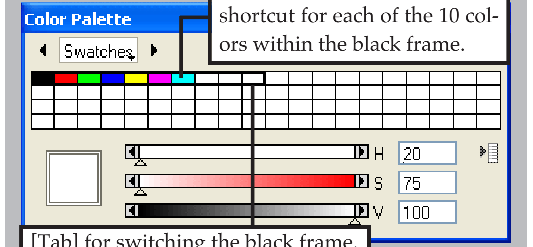
The [Foreground Color] button becomes the selected color.



[Foreground Color] button

Tips

The following keyboard shortcuts are available in the [Color Palette].



[1] to [0] numeric one-key shortcut for each of the 10 colors within the black frame.

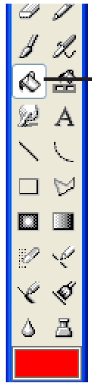
[Tab] for switching the black frame.

Painting (Fill tool) F

The procedure for painting with the color set in the [Foreground Color] button is as follows.

1. Select the Fill tool.

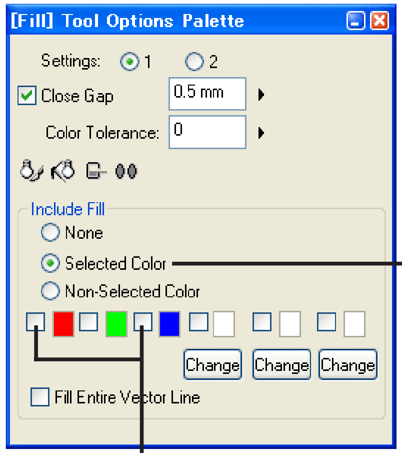
Select [Fill] tool from the [Tool Palette].



[Fill] tool

2. Configure the Tool Options Palette.

Select [Tool Options Palette] from the [Window] menu.



[Fill] Tool Options Palette

Settings: ● 1 ○ 2

☑ Close Gap 0.5 mm

Color Tolerance: 0

Include Fill
○ None
● Selected Color
○ Non-Selected Color

☐ Fill Entire Vector Line

❶ Select the [Selected Color] radio button.

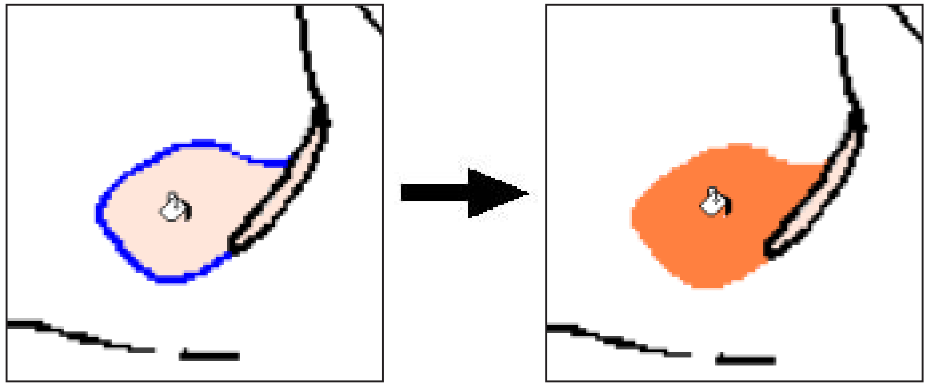
❷ Select the checkbox of the color you want to use for IncludeFill.

Tips

With the [Fill] tool, you can change the color of a series of closed areas of the same color in one operation.

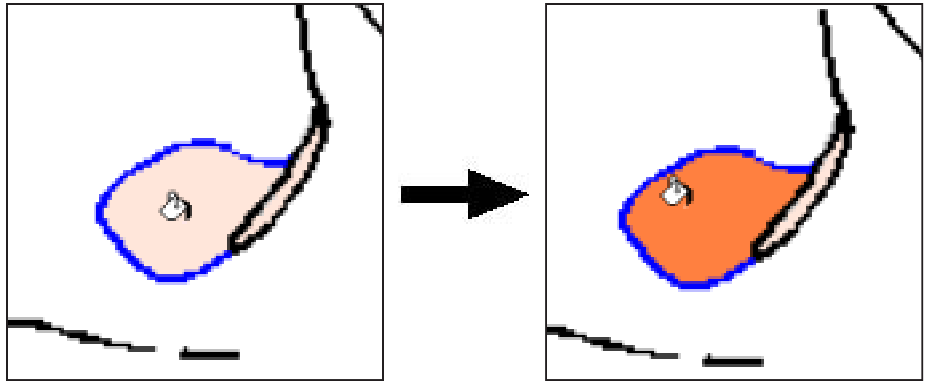
3. Paint.

Click at any point within the area you want to paint. The outlines and the color separation lines are painted with IncludeFill.



(Reference)

* Example without IncludeFill

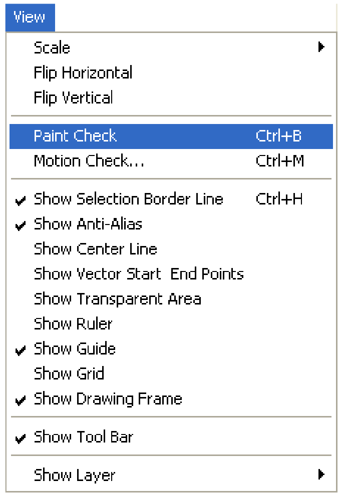


Checking the painting

A white (transparent color) check is necessary once painting with PaintMan HD is complete because pure white (R:255, G:255, B:255) becomes transparent after a backlight compositing in white with CoreRETAS, thus becoming indistinguishable from the transparent parts of the cel. The procedure for this check is as follows.

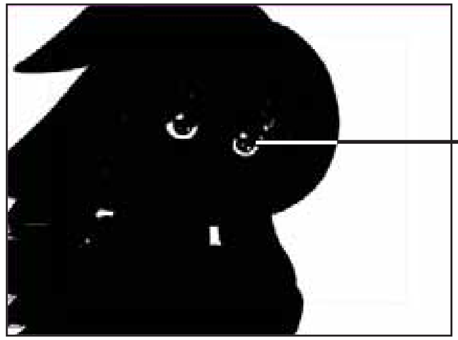
1. Select the Paint Check command.

Select [Paint Check] from the [View] menu.


View
Scale
Flip Horizontal
Flip Vertical
Paint Check Ctrl+B
Motion Check... Ctrl+M
✓ Show Selection Border Line Ctrl+H
✓ Show Anti-Alias
Show Center Line
Show Vector Start End Points
Show Transparent Area
Show Ruler
✓ Show Guide
Show Grid
✓ Show Drawing Frame
✓ Show Tool Bar
Show Layer

2. Show the painted areas.

All colors except pure white are shown in black so that you can easily detect forgotten areas.



In the figure at the left, the white part of the eyes needs to be corrected as it is in pure white (transparent color).

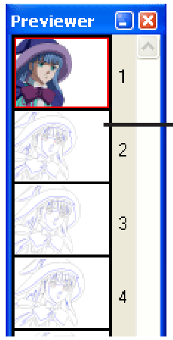
Going on to the next inbetween, and saving

Switching inbetweens

The procedure for switching the inbetween after completing the painting is as follows.

1. Open the File Previewer.

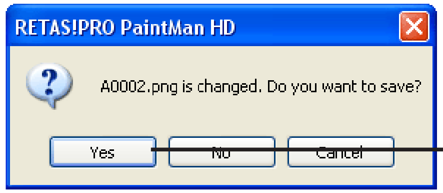
Select [File Previewer].


Previewer
1
2
3
4

Click the next inbetween thumbnail.

2. Save the file.

The following dialog box appears. PaintMan HD tries to save the image in the current screen automatically when the next inbetween is called (only when the current image has changes).



RETAS!PRO PaintMan HD

A0002.png is changed. Do you want to save?

Yes
No
Cancel

Click [Yes] to save and advance to the next image.

Tips

The previous/next cell can be called also by clicking the [Previous Cel/Next Cel] on the [Tool Palette].

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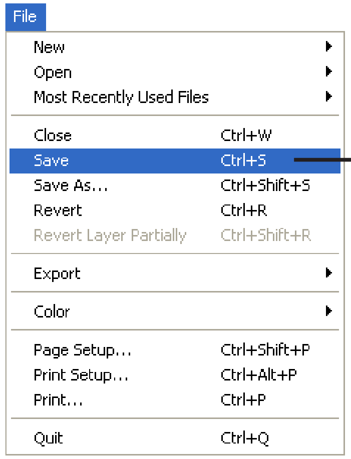
Saving manually

The procedure for saving manually the image once the painting is complete is as follows.

1. Select the save command.

Selecting [Save] from the [File] menu saves the cel in the scene folder you created at the beginning.


File
New
Open
Most Recently Used Files
Close Ctrl+W
Save Ctrl+S
Save As… Ctrl+Shift+S
Revert Ctrl+R
Revert Layer Partially Ctrl+Shift+R
Export
Color
Page Setup… Ctrl+Shift+P
Print Setup… Ctrl+Alt+P
Print… Ctrl+P
Quit Ctrl+Q

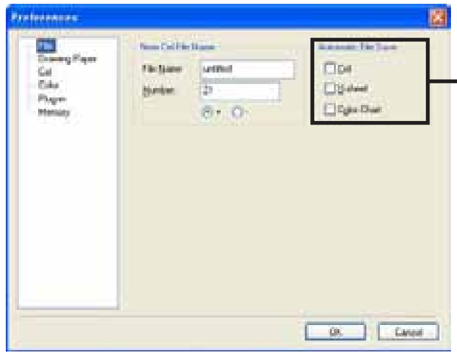
Select [Save].

Saving automatically

The procedure for configuring the Preferences to make the system save the inbetween automatically without showing the Save dialog box when moving onto the next inbetween is as follows.

1. Open the Preferences dialog box.

Select [Settings...] → [Preferences...] → [File] from the [Edit] menu (Windows) or [Preferences...] → [File] from the application menu (Macintosh).

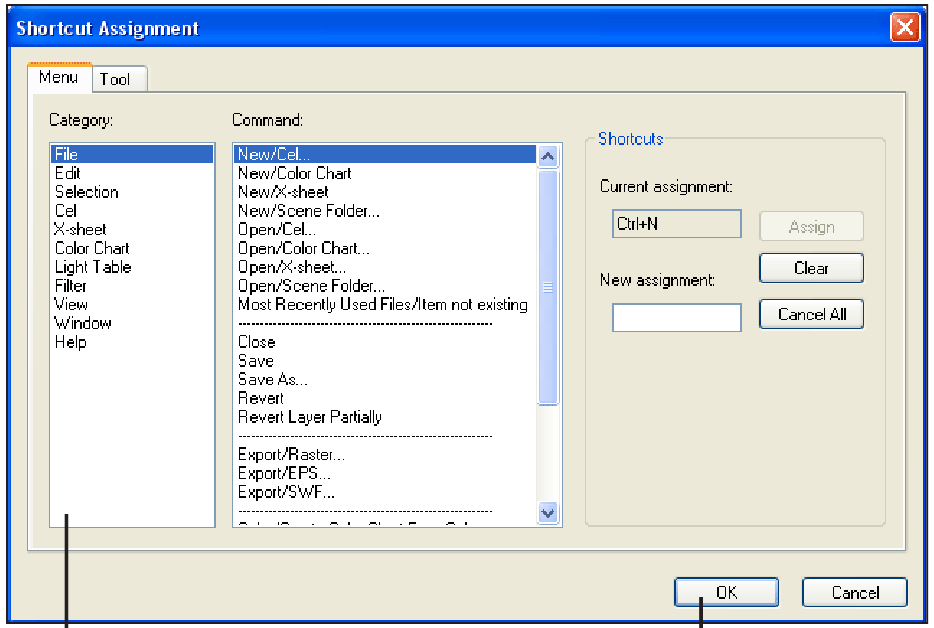


Select the check box.

Editing the shortcuts

Configuring the shortcuts

To edit the shortcuts, select [Settings...] → [Shortcut...] from the [Edit] menu.


Shortcut Assignment
Menu
Tool
Category:
File
Edit
Selection
Cel
X-sheet
Color Chart
Light Table
Filter
View
Window
Help
Command:
New/Cel...
New/Color Chart
New/X-sheet
New/Scene Folder...
Open/Cel...
Open/Color Chart...
Open/X-sheet...
Open/Scene Folder...
Most Recently Used Files/Item not existing
Close
Save
Save As...
Revert
Revert Layer Partially
Export/Raster...
Export/EPS...
Export/SWF...
Shortcuts
Current assignment:
Ctrl+N
Assign
Clear
New assignment:
Cancel All
OK
Cancel

❶ Editable shortcuts are those of menu items and tools.

❷ Click [OK] to confirm the changes.

RETAS!PRO

Chapter 4

Basics of RETAS!PRO

Scene Folder

What is a scene folder?

The production of an animation is a group work that involves the handling of a large amount of image files. If everyone in the group is allowed to name files and folders arbitrarily on his/her own, division of works would become impossible as nobody would know where a particular image is stored or what the content of an image file is, except the person that created the file.

In RETAS!PRO, image files are managed on a folder basis as a method for managing large amount of image files efficient and systematically.
And this management method is called "Scene Folder system".
Furthermore, implementing an image file management compliant with the "Scene Folder system" makes it easier to exchange data with other animation studios.
In the scene folder system, all data necessary for a scene is saved in a folder called "Scene Folder".

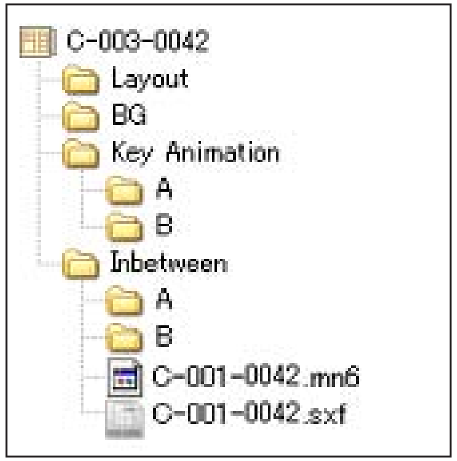
RETAS!PRO HD allows you to digitize directions and/or messages that were traditionally conveyed in paper. That is, you cannot only enter basic information regarding the scene such as "Title", "Sequence Number", and "Scene Number" etc. but use a function called "Message Board" to include directions and messages in text format in the scene, or use the "Handwriting Memo" function to include directions that are difficult to convey in plain text.
In this way, with RETAS!PRO HD, you only need to pass on the scene folder without the need to prepare a separate set of papers containing directions and messages, allowing you to implement a completely paperless workflow.

Two types of scene folders

Scene folders are either "Drawing Scene Folder" or "Cel Scene Folder" depending on where they are used.

Drawing Scene Folder

A scene folder for drawing with STYLOS HD
composed of
- "Layout"
- "Key Animation"
- "Inbetween"
- "BG"
- "X-sheet" (sxf)
- Management file (mn6)



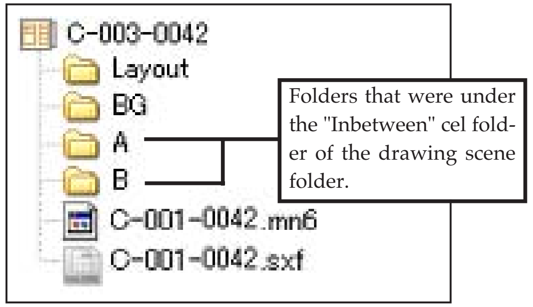
Drawing Scene Folder

Cel Scene Folder

A scene folder for
- **Scanning and tracing with TraceMan HD**
- **Painting with PaintMan HD**
- **Shooting with CoreRETAS**

composed of
- "Layout"*
- "Key Animation"*
- "Inbetween"
- "BG"*
- "X-sheet" (sxf)
- Management file (mn6)

* Selectable at export.



Folders that were under the "Inbetween" cel folder of the drawing scene folder.

Cel Scene Folder

Tips

When [Export] → [Painting...] is selected from the [File] menu, the STYLOS HD "Drawing Scene Folder" with finished drawings is converted into "Cel Scene Folder" with the cel folders under the "Inbetween" folder extracted.
Note that folders with names starting with "- (hyphen)" or "_ (underscore)" such as "-BG" or "-LO" cannot be batch processed by TraceMan HD.

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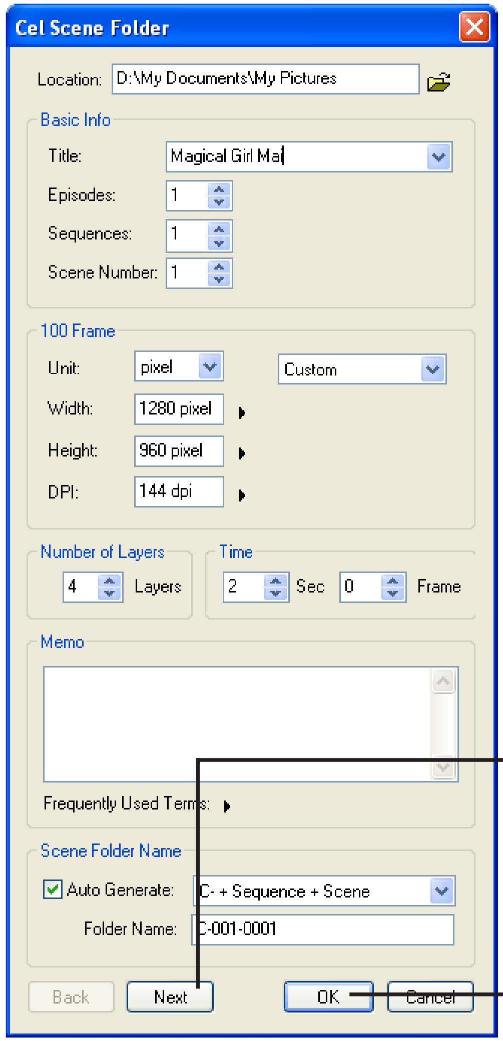
Creating a new drawing/cel scene folder

The procedure for creating a drawing scene folder (for STYLOS HD) or a cel scene folder (for TraceMan HD or PaintMan HD) is as follows.

1. Open the [Scene Folder Basic Settings] dialog box.

Select [New Scene Folder...] from the [File] menu or the [File Browser] to open the [Drawing Scene Folder] or [Cel Scene Folder] dialog box Basic Settings menu.



Cel Scene Folder

Location: D:\My Documents\My Pictures

Basic Info

Title: Magical Girl Mai

Episodes: 1

Sequences: 1

Scene Number: 1

100 Frame

Unit: pixel

Custom

Width: 1280 pixel

Height: 960 pixel

DPI: 144 dpi

Number of Layers: 4 Layers

Time: 2 Sec 0 Frame

Memo

Frequently Used Terms:

Scene Folder Name

☑ Auto Generate: C- + Sequence + Scene

Folder Name: C-001-0001

After configuring the settings, click [Next] to open the [Scene Folder-Layer Settings] dialog box. (Only TraceMan HD and PaintMan HD)

Configure the settings then click [OK] to create the scene folder.

[Location]

Click the button at the right to open the [Browse Folder] dialog box and select the folder location.

[Basic Info]

- **[Title]**
  Enter the title.
- **[Episodes]**
  Enter the number of episodes.
- **[Sequence]**
  Enter the sequence number.
- **[Scene Number]**
  Enter the scene number.

[100Frame]

- **Popup menu**
  The popup menu allows you to select the unit, width, and height for the 100Frame from a list.

- **[Unit]**
  Enter the unit for the 100Frame standard resolution.
- **[Width]**
  Enter the width for the 100Frame standard resolution.
- **[Height]**
  Enter the height for the 100Frame standard resolution.
- **[DPI]**
  Enter the resolution for the 100Frame standard resolution.

[Number of Layers]

Enter the number of layers (cel folders) that will be available in the scene folder.

[Time]

Enter the length of the scene.

[Memo]

Enter memos as required.

[Scene Folder Name]

- **[Auto Generate]**
  This option allows you to automatically generate the scene folder name using the sequence number, scene number, etc.
  [C- + Sequence + Scene]
  [Sequence + Scene]
  [Episode + Sequence + Scene]
  [Title + Episode + Sequence + Scene]
- **[Folder Name]**
  This field is for entering the scene folder name manually (when not using the automatic generation option).

- **[OK]**
  Creates a new scene folder according to the settings in the dialog box.
- **[Cancel]**
  Cancels the new scene folder creation.

- **[Next] (Only TraceMan HD and PaintMan HD)**
  This button allows you to open the next setting dialog box. Switches the shown dialog box from [Scene Folder Settings] to [Scene Folder-Layer Settings]. Use this button to configure the [Upper Cel] and [Lower Cel] settings.

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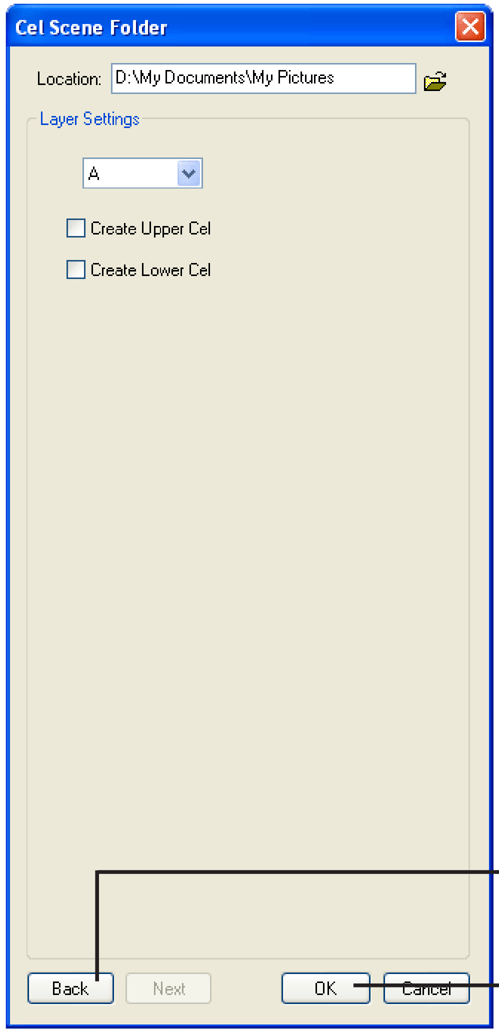
Configuring the upper cel/lower cel (Only TraceMan HD/PaintMan HD)

Upper Cel or Lower Cel is a layer on top of or under a given layer. If you create an Upper Cel or a Lower Cel for a given A Cel, the Upper or Lower Cel will share with A Cel all of the parameters on the X-sheet except [Cel Number].

1. Open the [Scene Folder Layer Settings] dialog box.

The [Scene Folder-Layer Settings] dialog box is shown when [Next] is clicked in the [Scene Folder-Basic Settings] dialog box of the TraceMan HD or PaintMan HD.



Location: D:\My Documents\My Pictures

A

☐ Create Upper Cel

☐ Create Lower Cel

Configure the settings then click [Back] to return to the [Scene Folder-Basic Settings] dialog box.

Configure the settings then click [OK] to create the scene folder.

[Location]

Click the button at the right to open the [Browse Folder] dialog box and select the folder location.

Layer Settings menu

This menu is for selecting the Cel Layer to which you want to create an Upper Cel or a Lower Cel.

- **[Create Upper Cel]**
  Creates an [Upper Cel] subfolder for the selected layer.
- **[Create Lower Cel]**
  Creates a [Lower Cel] subfolder for the selected layer.

- **[Back] button**
  Returns to the previous settings dialog box.
- **[Next] button**
  Advances to the next settings dialog box.

- **[OK] button**
  Creates a new scene folder according to the settings in the dialog box.
- **[Cancel] button**
  Cancels the new scene folder creation.

Tips

Selecting [New Scene Folder...] from the [File] menu in STYLOS HD shows the [Drawing Scene Folder] dialog box that creates a [Drawing Scene Folder]. However, selecting [New Scene Folder...] from the [File] menu in TraceMan HD or PaintMan HD shows the [Cel Scene Folder] dialog box that creates a [Cel Scene Folder].

Scene Folder components

A scene folder may contain the following components.

1. Cel folder: A folder for storing inbetweens

Images such as BG (background), A cels, B cels, and C cels are stored in their respective folders.
In principle, the folder name must match that of the layer.
That is, images for A cels must be stored in folder "A", those for B cels in folder "B" and so on.
If CoreRETAS finds a subfolder with the same name as the folder of the corresponding image layer (e.g., -BG, A - Z) when loading a "Scene Folder", it considers the subfolder a "cel folder".
CoreRETAS loads the "cel folder" to the cel bank and links it to a cel layer of the same name.
Folder names for BG (background) generally start with "- (hyphen)" or "_ (underscore)". Examples: "-BG"

2. Subcel folder: A folder for storing combined cels

A subcel layer is an image layer under the cel layer and it is either an Upper Cel type or a Lower Cel type.
This is mainly used for "combined cels". When processing a "combined cel" use the "Lower Cel" if there is no special reasons.
At "Scene Folder" loading, CoreRETAS automatically searches the cel folders under the scene folder and executes the "Load to Cel Bank" and "Transparency Settings". If CoreRETAS finds subfolders under the "Cel Folder", it loads them to the cel bank according to the following procedure.

If a subfolder with the same name as the cel folder (-BG, A - Z) is found under a cel folder, the folder is loaded to the cel bank and linked to a cel layer of the same name.

If a folder with the name "(image layer) folder name" + "+" or "(image layer) folder name" + "-" is found under a cel folder, the folder is loaded to the cel bank as "Upper Cel" or "Lower Cel" of the "image layer", respectively.

Any other image file or folder cannot be loaded automatically by CoreRETAS.

Tips

Note that folders with name starting with "- (hyphen)" or "_ (underscore)" or including "BG" in their name cannot be batch processed with RETAS!PRO.

3. Image file: An image file containing a key, inbetween, or BG drawing

A cel folder contains images to be used in the relevant layer.
In the scene file system, the basic naming rule is as follows.

Layer Name + (4-digit) Sequential Number + Extension

The "layer name" is, in principle, a 1-letter name that corresponds to A Cel, B Cel, etc.

The "sequential number" must always be a 4-digit number.
The sequential number starts at "0000". However, "0000" is not used.

The "extension" must be placed unless there is a special reason. (Also when working with MacOS)

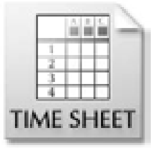
Example: A Cel image layer folder
A0001.png
A0002.png
A0003.png
A0004.png
.
.

Examples of invalid names:

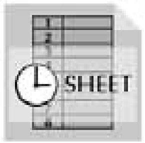
A0000.png	The sequential number part is "0". Sequential number must always start from "1".
A1.png	Number of digits in "sequential number" is insufficient.
A0002	Extension is missing.

It is not necessary for you to follow the naming rules, except for the "extension" for the system to be able to process your files. However, be careful as RETAS!PRO numbers the inbetweens in ascending order (the order in which they are registered into the library).

4. X-sheet file:
STYLOS (extension: sxf) / CoreRETAS (extension: tsf)

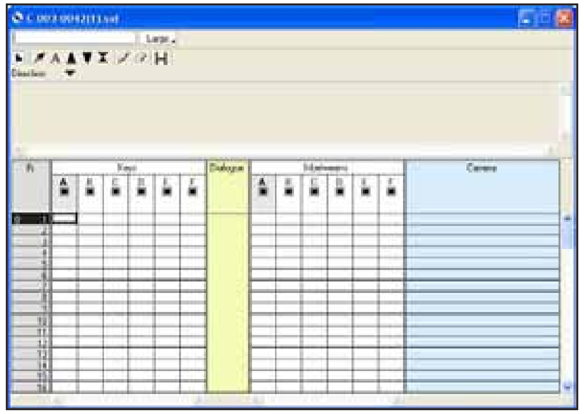


[X-sheet file]
(STYLOS)



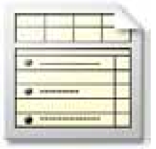
[X-sheet file]
(CoreRETAS)

The following is an example of an X-sheet file created with RETAS!PRO.



This file is used to specify the timings for the animation. There are two types of X-sheet: the STYLOS and the CoreRETAS.

5. Management file (extension: mn6)



[Management File]

This is a file where you will record various data which are necessary for working with each of the RETAS!PRO applications.
RETAS!PRO considers a folder Scene Folder and automates its processing and configuration only if a management file is present in the folder.
The management file is a file created by RETAS!PRO when it creates a "new scene folder". This is not a file the user can create at his/her discretion.
All RETAS!PRO applications executes the various settings automatically based on the information there.
Furthermore, each RETAS!PRO application rewrites the information as required.
For these reasons it is prohibited for users to move, delete, or change directly the "management file".
Data of an already created X-sheet for example, does not become corrupted even if the user moves, deletes, or changes the "management file" directly. However, settings that are usually configured automatically may need to be done manually.

Rules for scene folder operation

The followings are basic rules you need to follow in the operation of scene folders.

1. To move, copy, or delete a file, perform the operation on a folder basis.

RETAS!PRO handles images on a folder basis. Moving only a particular image file after having loaded the scene folder may cause unexpected troubles due to inconsistency with the X-sheet content, for example.
Also make sure to create a dedicated folder even when you need to deal with only one file.

2. Do not store unnecessary files in the folder.

Save intermediate files generated in the processes to a dedicated folder under the scene folder because if unnecessary files are present in the folder for inbetweens, they will produce blank positions when the inbetweens are loaded to the file previewer/cel bank (see "Inbetween numbering in RETAS!PRO" below).

3. Folders you want to exclude from batch processing.

To exclude folders such as those for BGs and/or intermediate materials from the subfolder batch processing by TraceMan, use folder names starting with "- (hyphen)" or "_ (underscore)". Examples: "-BG", "_temp"

Scene Folder name basic format

The followings are basic formats of recommended Scene Folder names.

Example: Scene number 12
C-012

If the scene contains a number of sequences:

Example: Sequence 07 of scene number 20
C-07-20

If a scene folder contains a number of shared scenes, name the folder putting all scene numbers separated by a comma.

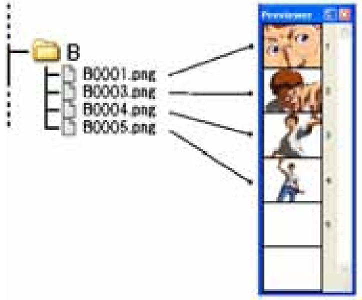
Example: Shared scenes 17, 19, and 22
C-017,019,022

Image files containing scanned frame markups for camera work for example, must be saved in a folder named -FRAME (or FRAME).

Example: -FRAME

Inbetween numbering in RETAS!PRO

In RETAS!PRO, the inbetween number (cel order) is not directly related to the sequence number in the file name.
RETAS!PRO loads to the cel bank (CoreRETAS) all image files present in a specified folder as a series of inbetweens (sequentially numbered files) and numbers them in the order they are loaded (in ascending order).
Files are loaded sorted by name starting with "1".
For this reason, the number in the filename and the cel number in the file previewer/cel bank are not always the same, depending on how the files are named.


Previewer
B
B0001.png
B0003.png
B0004.png
B0005.png

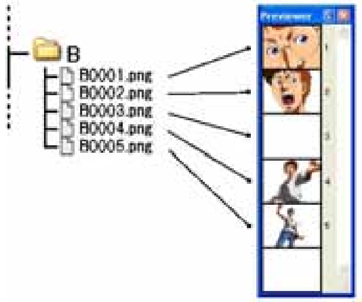
[Figure: When there is a missing number]

In the example above, there is a difference between the actual cel number and the cel number in the file previewer or cel bank since A0002.png is missing.

Manage the files as described in the following sections to avoid differences in the cel numbers and make working with RETAS!PRO smoother.

Missing (deleted) inbetween

If there is a deleted image file inbetween, a difference arises between the actual cel numbers and the cel numbers in the file previewer/cel bank for subsequent cels. To avoid this kind of situation, insert a dummy file.


Previewer
B
B0001.png
B0002.png
B0003.png
B0004.png
B0005.png

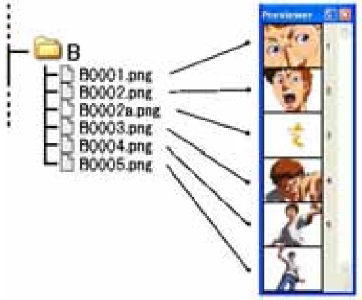
[Figure: Example with a dummy file (A0002.tga is the dummy file)]

Paint the dummy file in pure white (R:255 G:255 B:255) so that it is handled as transparent even if included in the CoreRETAS X-sheet by mistake.

Additional inbetween

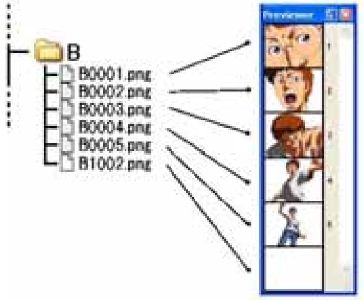
Assume a case of an additional inbetween between the second (A0002.png) and the third (A0003.png) inbetweens.

The inbetween can be added in the correct position by naming it "A0002a.png", for example. However, if named in this way, the subsequent cel numbers will differ from the actual ones when loaded to CoreRETAS.


Previewer
B
B0001.png
B0002.png
B0002a.png
B0003.png
B0004.png
B0005.png

[Figure: Example with additional file (A0002a.png)]

Use a cel number larger than that of the last inbetween for the additional inbetween to avoid the difference in numbers in the file previewer/cel bank.
Put a far larger cel number for the additional inbetween. Use "A1002a.png", for example, to easily identify that it is an additional inbetween from the filename.


Previewer
B
B0001.png
B0002.png
B0003.png
B0004.png
B0005.png
B1002.png

[Figure: Example with additional file (A1002a.png)]

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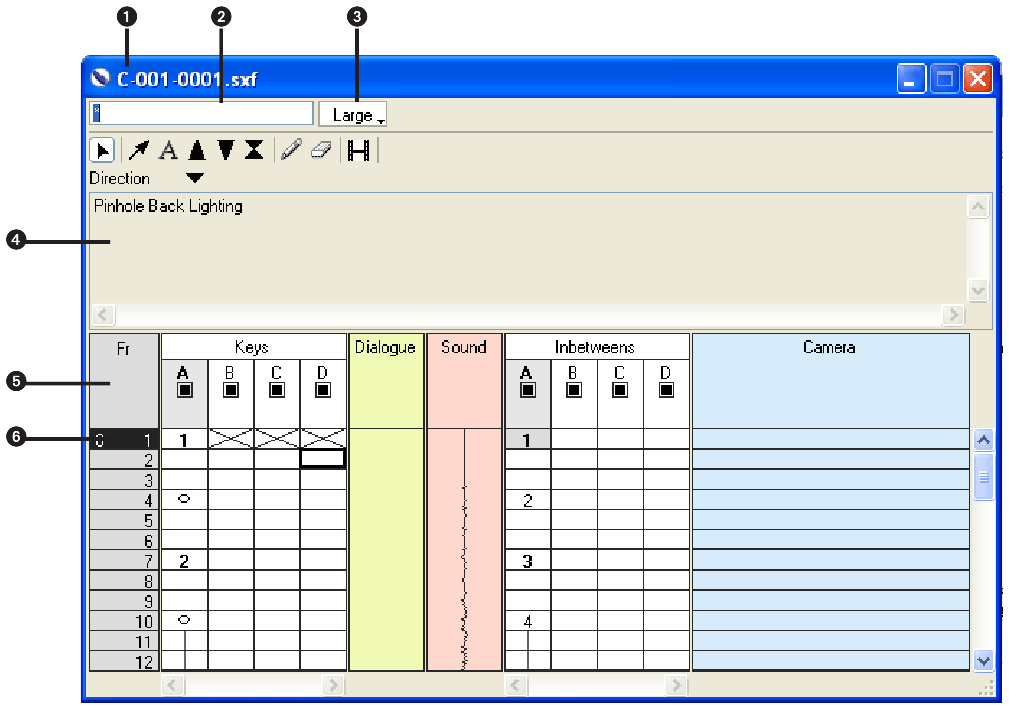
X-Sheet

What is an X-sheet?

The X-sheet is the form where the timings for keys and inbetweens, the cel stacking, shooting directions, etc. are specified. The horizontal axis indicates how the cels must be arranged in the cel stack (layers) while the vertical axis, the times (frame). In RETAS!PRO, the X-sheet is used to manage key numbers, inbetween numbers, dialogue, sound, shooting directions, etc.



Pinhole Back Lighting

Frame (row)

"Frame" is the name given to each of the X-sheet rows.
Frames always start from "1", so that the in the 12th row you have the "12th frame" and in the 60th row, the "60th frame". A maximum of 999 rows are available for frames.

Layer (column)

"Layer" is the name given to each of the X-sheet columns which represents an image layer. Both for [Keys] and [Inbetweens], the more at the left a layer is the more at the bottom in the cel stack and vice versa. A maximum of 32 layers of cels are available for both keys and inbetweens, shown as A - Z, AA - AF by default.

Data cell

"Data Cell" is the cell in which a key number or inbetween number is registered.

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Name of the X-sheet window components

❶ **Title bar**
Shows the X-sheet filename.

❷ **Input box**
Field for entering data such as key number, inbetween number, dialogue, etc.

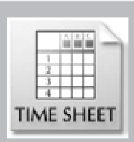
❸ **View Size switch**
Select a view size for the [X-sheet] window from among Large, Normal, and Small.

❹ **Direction field**
Field for entering the text of a shooting direction, for example. To enter a text, double click any part of the field.

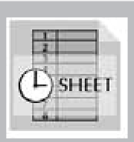
❺ **Current frame**
"Current Frame" is the frame you are currently working on and is shown highlighted.

Tips

The X-sheet explained in this chapter is primarily the X-sheet used in STYLOS HD (*.sxf). For you to be able to use an X-sheet in SXF format in CoreRETAS, you need to export it to a CoreRETAS X-sheet (*.tsf) using either STYLOS HD, TraceMan HD, or PaintMan HD.

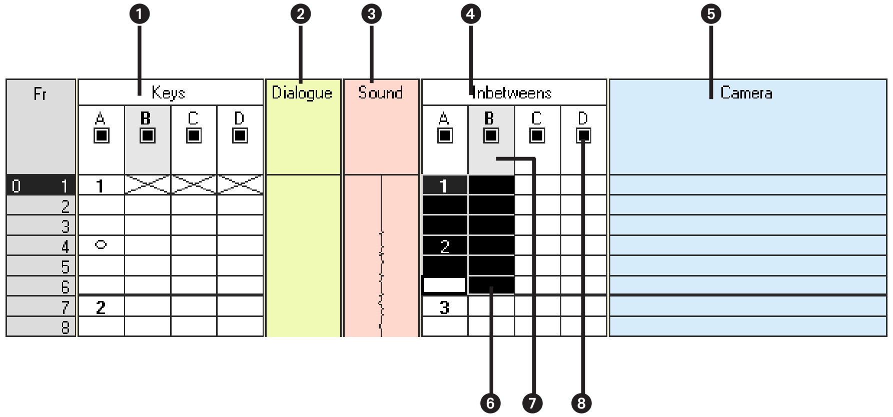


SXF format



TSF format

Name of the X-sheet window fields



① **[Keys] column**
This column is for registering keys. It comprises multiple layers such as "A Cel", "B Cel", etc. The more at the left a layer is the more at the bottom in the cel stack and vice versa. That is, cels are ordered in the cel stack in the A Cel, B Cel, C Cel, etc. order from the bottom.

② **[Dialogue] column**
This column is for entering the dialogue.
The dialogue is entered from the Input field and shown in this column at a pace of 1 letter each 3 frames.

③ **[Sound] column**
This column is for registering the sound. The column is not shown by default.
The sound is shown on this layer as a sound wave.

④ **[Inbetweens] column**
This column is for registering the inbetweens. It comprises multiple layers such as "A Cel", "B Cel", etc. The more at the left a layer is the more at the bottom in the cel stack and vice versa. That is, cels are ordered in the cel stack in the A Cel, B Cel, C Cel, etc. order from the bottom.

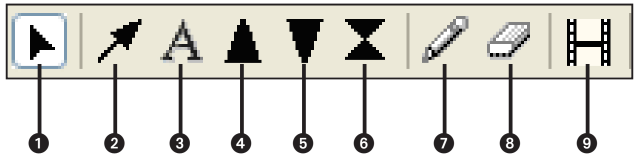
⑤ **[Camera] column**
This column is for putting shooting directions. You may use tools such as Arrow, Text, Fade In, Fade Out, and Overlap to put shooting directions.

⑥ **Selection**
Selection is an area in the X-sheet where multiple data cells are selected and is shown highlighted. You may select multiple rows as well as multiple columns within the "Keys column" or "Inbetweens column".
The Selection can be used as target of an input from the Input box, a Cut&Paste, or a "Transfer Inbetween Numbers" function when entering inbetween numbers. The Selection can be moved using the arrow keys.

⑦ **Current layer**
"Current Layer" is the layer you are currently editing on the X-sheet and is shown highlighted.

⑧ **Cel Layer switch**
If clicked and turned off, the corresponding layer is excluded from the drawing targets.

Name of the X-sheet window tools



① **[Column Selection] tool**
② **[Arrow] tool**
③ **[Text] tool**
④ **[F.I. (Fade In)] tool**
⑤ **[F.O. (Fade Out)] tool**
⑥ **[O.L. (Overlap)] tool**
⑦ **[Pen] tool**
⑧ **[Eraser] tool**
⑨ **[Motion Check] button**

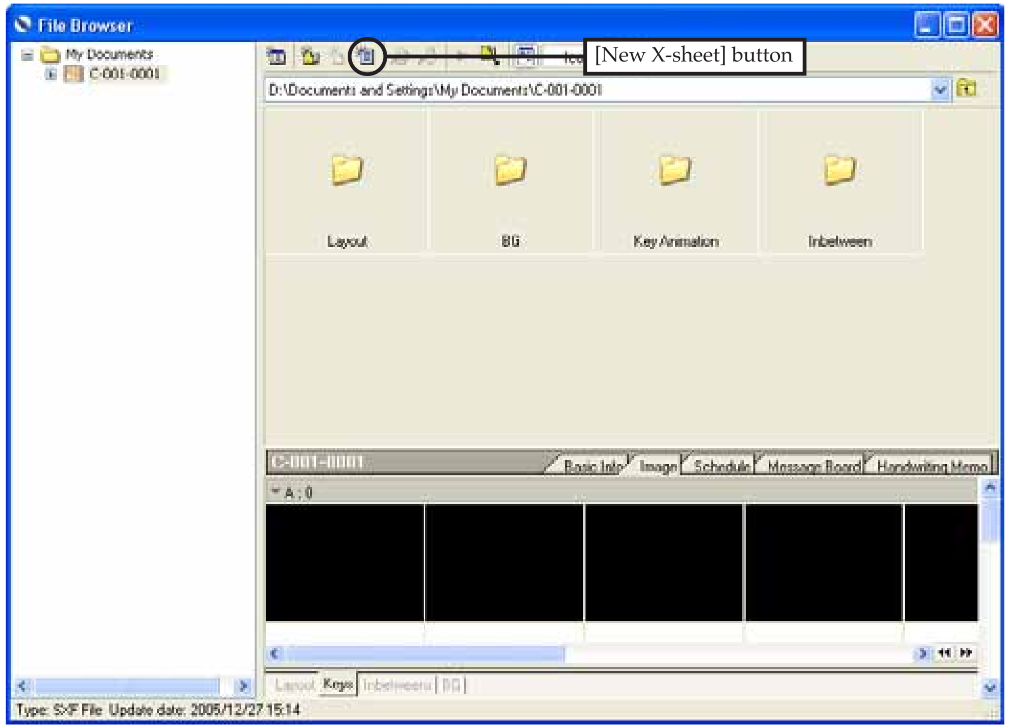
* For details about the operation of each tool, see the relevant section in this manual.

Creating a new X-sheet

Creation of a new X-sheet requires the entry of the basic settings, project information, and other details.

1. Creating a new X-sheet

Open a scene folder in the [File Browser].
Click [New X-sheet] on the [File Browser].

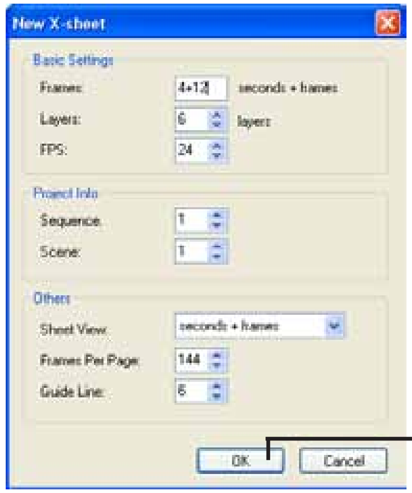

File Browser
My Documents
C-001-0001
[New X-sheet] button
D:\Documents and Settings\My Documents\C-001-0001
Layout
BG
Key Animation
Inbetween
C-001-0001
Basic Info
Image
Schedule
Message Board
Handwriting Memo
A : 0
Layout
Keys
Inbetweens
BG
Type: SXF File Update date: 2005/12/27 15:14

Tips

Creation of a new X-sheet is also possible by selecting [New] → [X-Sheet...] from the [File] menu.

2. Configuring with the New X-sheet dialog box

The [New X-sheet] dialog box is for configuring the basic settings, project information, and other details.


New X-sheet
OK
Cancel

Basic Settings
Frames: 4+12 seconds + frames
Layers: 6 layers
FPS: 24

Project Info
Sequence: 1
Scene: 1

Others
Sheet View: seconds + frames
Frames Per Page: 144
Guide Line: 6

Click [OK] to finish with the settings.

[Basic Settings]

- **[Frames]**
  Specify the duration of the X-sheet expressed in the units selected in [Sheet View].
- **[Layers]**
  Specify the number of cels of keys and inbetweens to be arranged in the cel stack.
- **[FPS]**
  Specify the number of frames per second.

[Project Info]

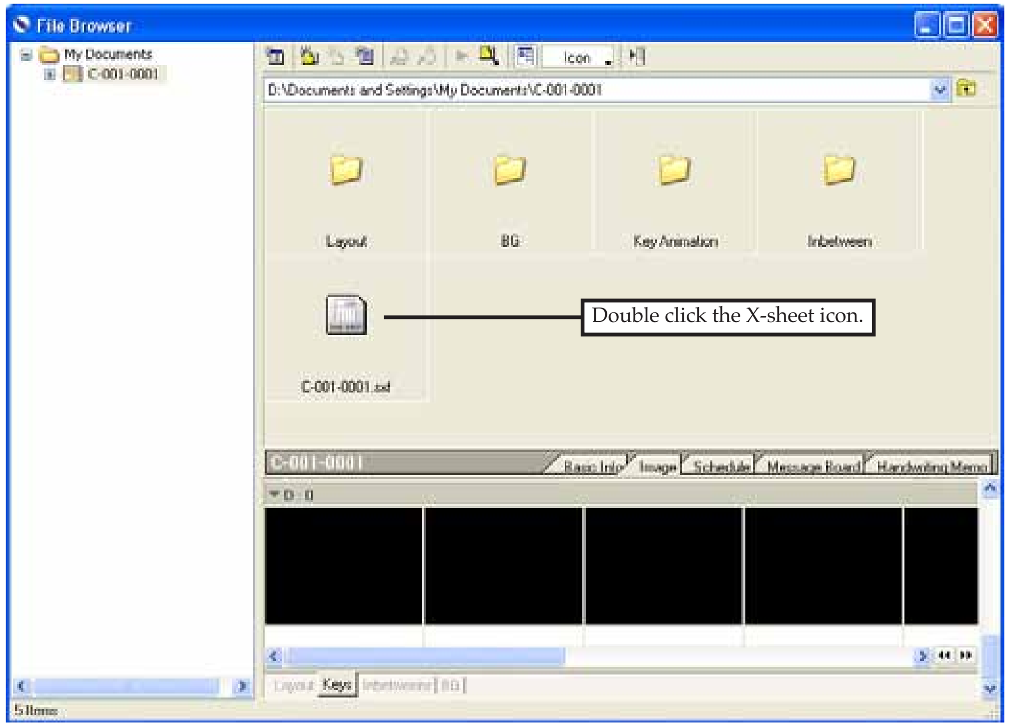
- **[Sequence]**
  Specify the sequence number of the animation.
  In the sequence number, you may use single-byte characters such as "1A".
- **[Scene]**
  Specify the scene number of the animation.
  In the sequence number, you may use single-byte characters such as "1A".

[Others]

- **[Sheet View]**
  Select one of the following units for showing the frames from the pull-down menu.
  [seconds + frames], [frames], [feet], [page, frame number]
- **[Frames Per Page]**
  Specify the maximum number of frames per page.
- **[Guide Line]**
  Specify whether to insert a guide line (separation) at regular intervals to make reading of the X-sheet easier. If you enter "6", for example, a bold line will be shown every 6 frames as separation.

3. X-sheet generation

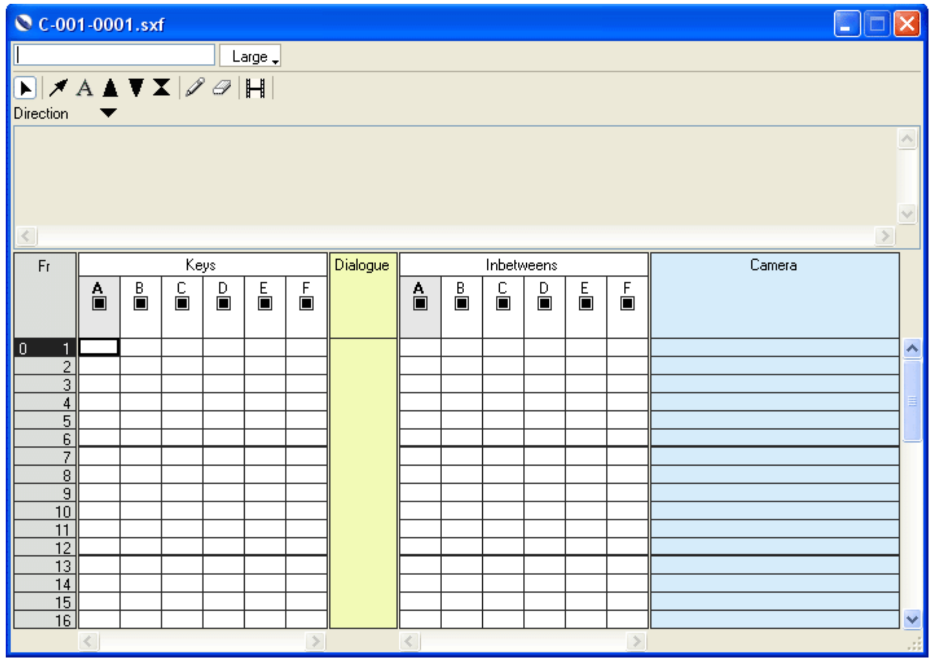
The new X-sheet is generated and its icon shown on the [File Browser].


File Browser
My Documents
C-001-0001
Icon
D:\Documents and Settings\My Documents\C-001-0001
Layout
BG
Key Animation
Inbetween
C-001-0001.sxf
C-001-0001
Basic Info
Image
Schedule
Message Board
Handwriting Memo
Layout
Keys
Inbetweens
BG
5 Items

Double click the X-sheet icon.

4. Opening an X-sheet

To open an [X-sheet Window], double click the X-sheet icon on the [File Browser].

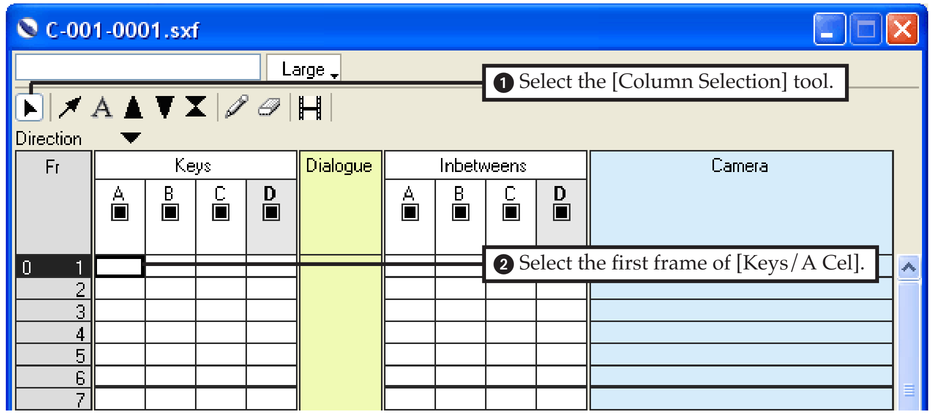

C-001-0001.sxf
Large
Direction
Fr
Keys
A B C D E F
Dialogue
Inbetweens
A B C D E F
Camera
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Entering the key and inbetween numbers

The procedure for assembling an X-sheet by entering the key numbers and signs is as follows.

1. Select the target frame.

Select the [Column Selection] tool from the tool bar on the [X-sheet Window] and select the frame in which you want to enter the key number.

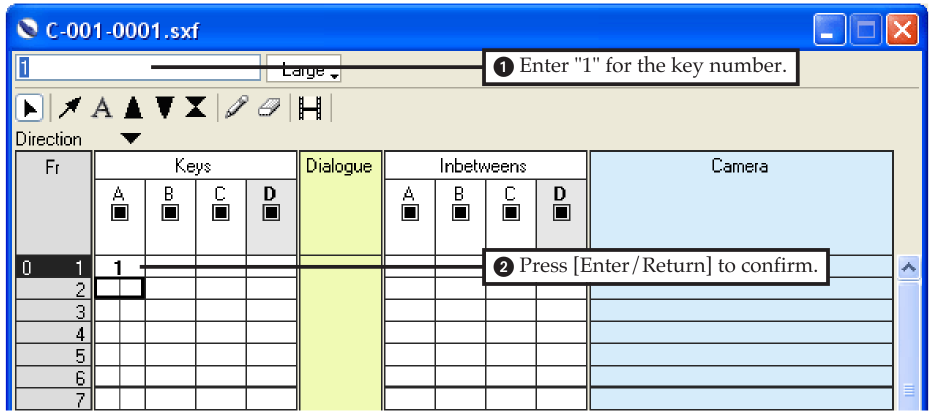

C-001-0001.sxf
Large
Direction
Fr
Keys
A
B
C
D
Dialogue
Inbetweens
Camera

① Select the [Column Selection] tool.

② Select the first frame of [Keys/A Cel].

2. Enter the key number in the Input box.

Enter the key number in the Input box that has been enabled using the keyboard.

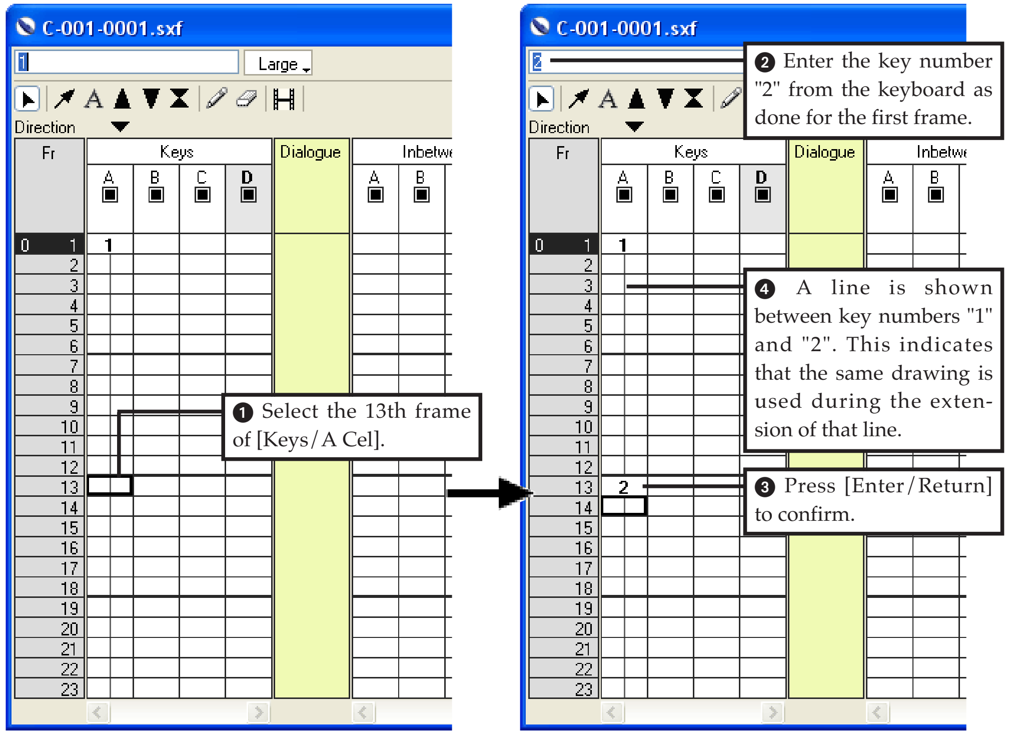

C-001-0001.sxf
Large
Direction
Fr
Keys
A
B
C
D
Dialogue
Inbetweens
Camera

① Enter "1" for the key number.

② Press [Enter/Return] to confirm.

3. Enter the next key number.

Select the frame for the next key and enter the key number from the keyboard as done for the first frame.


C-001-0001.sxf
Large
Direction
Fr
Keys
Dialogue
Inbetwe
C-001-0001.sxf

① Select the 13th frame of [Keys/A Cel].

② Enter the key number "2" from the keyboard as done for the first frame.

③ Press [Enter/Return] to confirm.

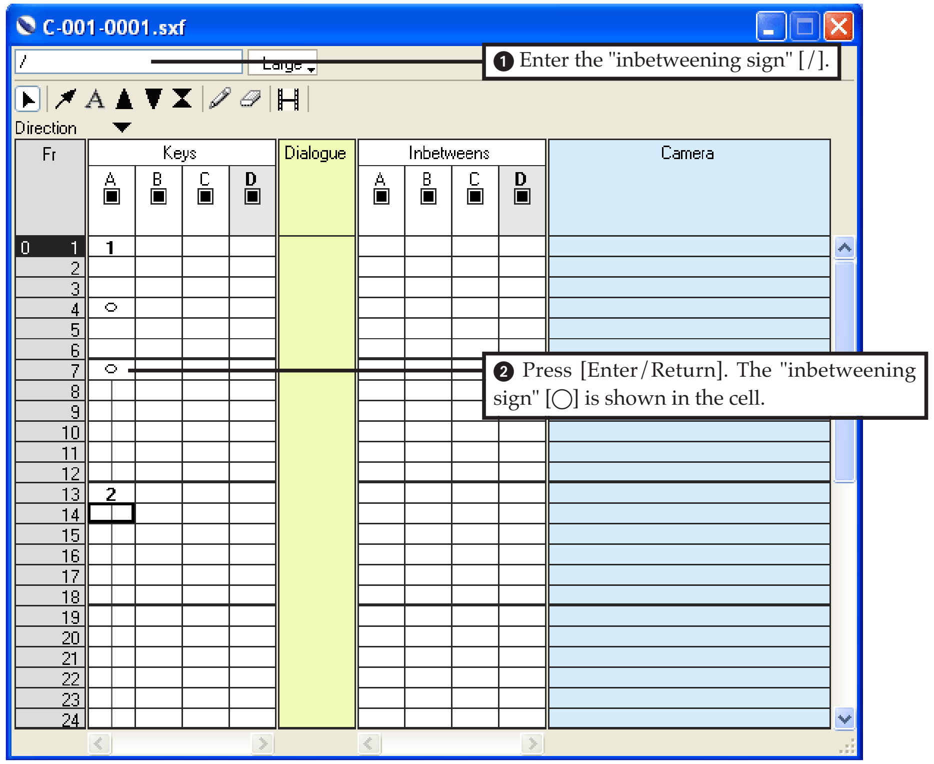
④ A line is shown between key numbers "1" and "2". This indicates that the same drawing is used during the extension of that line.

4. Enter the inbetweening sign.

Enter the inbetweening direction between the key numbers "1" and "2". In RETAS!PRO, an inbetweening direction is given using an "inbetweening sign". The method for entering an inbetweening sign is similar to that for entering a key number.

Signs that can be used for directions (e.g., inbetweening) are as follows.

- **Inbetweening sign** ○ **[/] key**
- **Reverse inbetweening sign** ● **[-] key**
- **Empty cell sign** ╳ **[*] key**



❶ Enter the "inbetweening sign" [/].

❷ Press [Enter/Return]. The "inbetweening sign" [○] is shown in the cell.

Tips

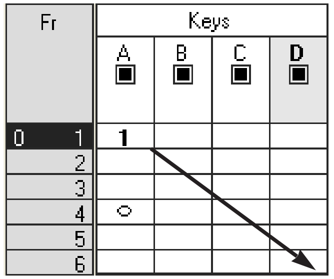
- Only single-byte alphanumeric characters can be used for a key or inbetween number.
- To correct an entered value, select the frame and reenter from the Input box.
- The line between the key numbers does not shown if the difference between them is less than 2 frames.
- Inbetweening sign and reverse inbetweening sign cannot be entered in the inbetween columns.

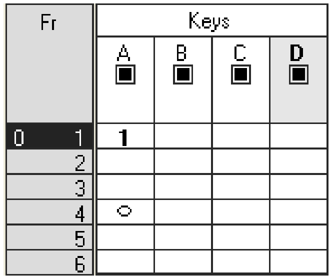
Selecting multiple data cells

The followings are methods for selecting multiple data cells.

Method 1 Drag

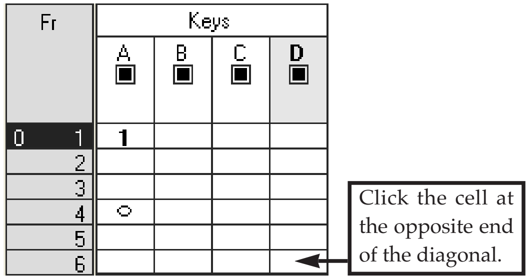
Drag the area of the X-sheet to select with the [Column Selection] tool. The selected [Data Cells] are shown enclosed in a bold black frame and highlighted.



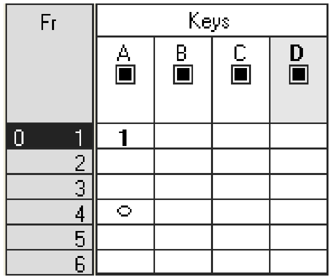


Method 2 Shift-Click

Click the starting [Data Cell], then click the end [Data Cell] with the [Shift] key held down at the opposite end of the diagonal. The selected [Data Cells] are shown enclosed in a bold black frame and highlighted.

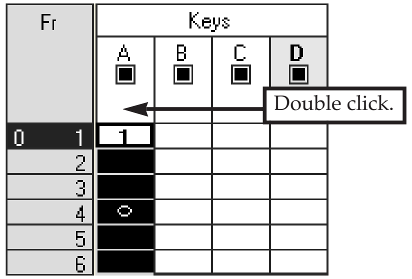


Click the cell at the opposite end of the diagonal.



Method 3 Selecting all data cells of a Cel layer

Double click the [Cel] title bar at the top of the [Cel] layer. All [Data Cells] from the first to the last in the corresponding [Cel] layer are selected.



Double click.

Tips

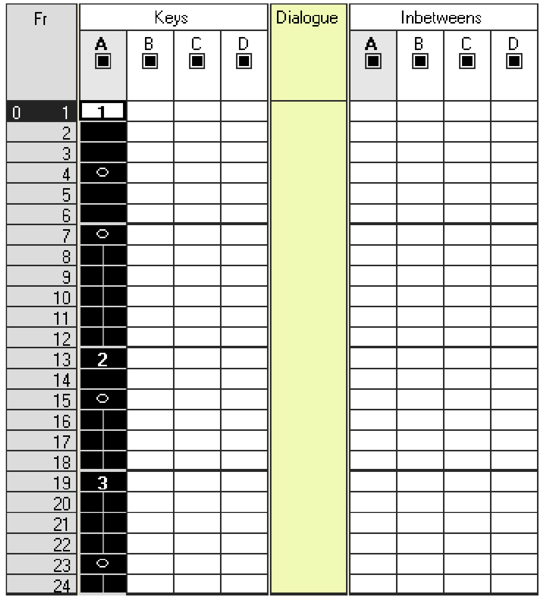
When dragging, the first [Data Cell] is not highlighted.

Transferring inbetween numbers

The procedure for generating the inbetween numbers automatically and then transfer based on the key number and the inbetweening direction is as follows.

1. Select the transfer source and destination.

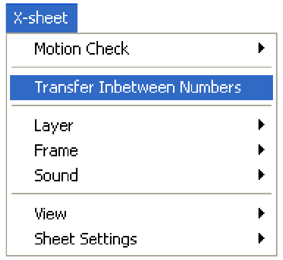
Open the X-sheet in which you want to transfer the inbetween numbers, and select the transfer source and destination [Cels].



Fr	Keys				Dialogue	Inbetweens			
	A	B	C	D		A	B	C	D
0 1	1								
2									
3									
4	○								
5									
6									
7	○								
8									
9									
10									
11									
12									
13	2								
14									
15	○								
16									
17									
18									
19	3								
20									
21									
22									
23	○								
24									

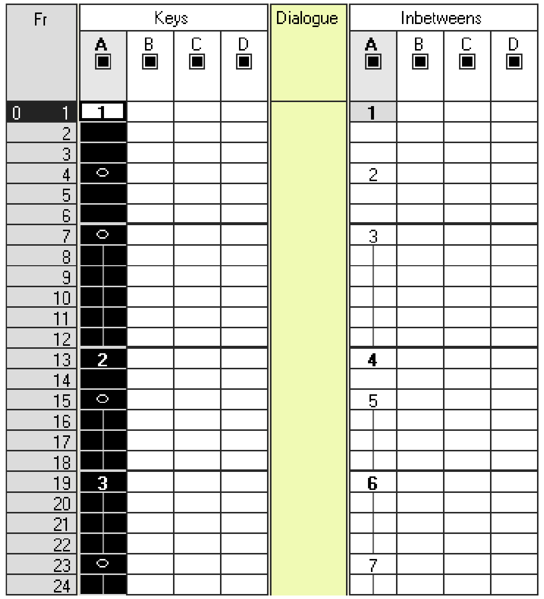
2. Select the menu.

Select [Transfer Inbetween Numbers] from the [X-sheet] menu.



3. Completion

The inbetween numbers generated based on the key number and inbetweening sign registered in the [Keys] column are transferred to the [Inbetweens] column.



Fr	Keys				Dialogue	Inbetweens			
	A	B	C	D		A	B	C	D
0 1	1					1			
2									
3									
4	○					2			
5									
6									
7	○					3			
8									
9									
10									
11									
12									
13	2					4			
14									
15	○					5			
16									
17									
18									
19	3					6			
20									
21									
22									
23	○					7			
24									

Tips

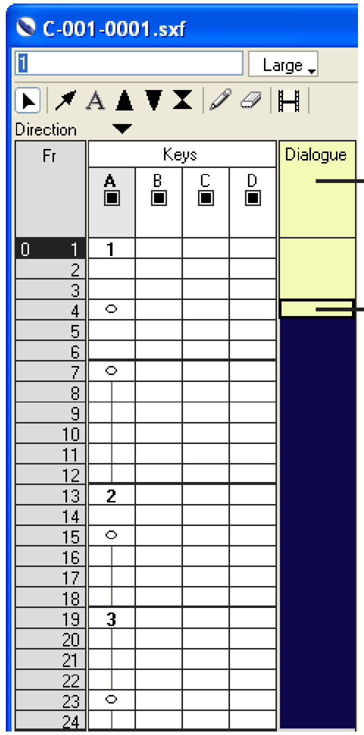
Make sure to check the inbetween numbers as transfer using [Transfer Inbetween Numbers] fails occasionally.
If [Transfer Inbetween Numbers] failed to transfer the inbetween numbers correctly, overwrite the correct numbers.

Entering a dialogue

The procedure for entering the dialogue the characters speak in the scene in the [Dialogue] column using text is as follows. The dialogue registered in the [Dialogue] column is shown on the screen during the motion check.

1. Select the Dialogue column.

Select the range of the [Dialogue] column to which the dialogue will apply. The selected data cells are shown enclosed in a bold black frame and highlighted.

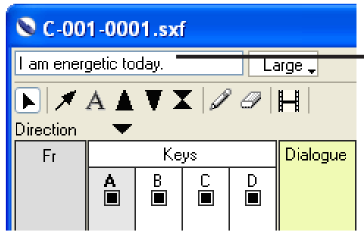

C-001-0001.sxf
Large
Direction
Fr
Keys
A
B
C
D
Dialogue

To select the entire column, double click the title bar of the [Dialogue] column.

To limit the input of the dialogue to a specific range, use the [Column Selection] tool and drag it over the [Dialogue] column along the range you want to select.

2. Enter the dialogue.

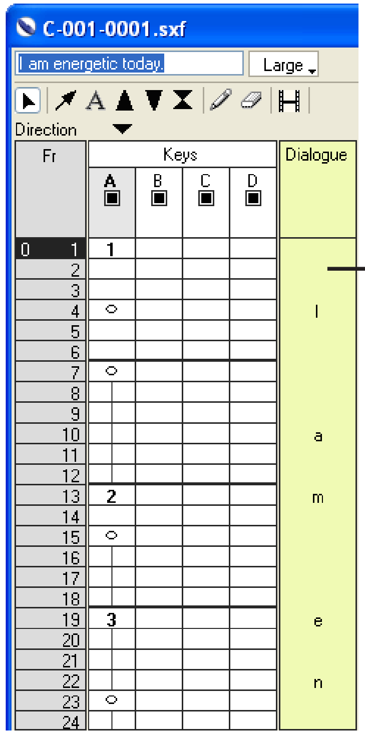
Enter the dialogue in the Input box that has been enabled using the keyboard.


C-001-0001.sxf
I am energetic today.
Large
Direction
Fr
Keys
A
B
C
D
Dialogue

Enter the dialogue.

3. Completion

Press [Enter/Return] to confirm. The dialogue is shown in the Dialogue column.


C-001-0001.sxf
I am energetic today.
Large
Direction
Fr
Keys
A
B
C
D
Dialogue
Dialogue

Tips

Do not use fonts and symbols specific to a given computer model.

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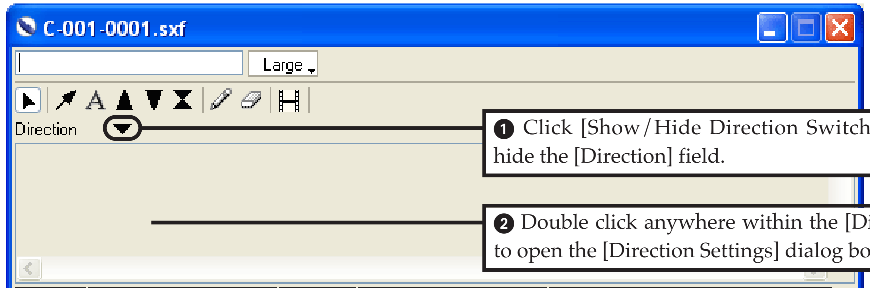
Entering a shooting direction 1

The procedure for entering a text in the [Direction] field is as follows.

1. Open the Direction field.

Open the [Direction] field in the X-sheet.

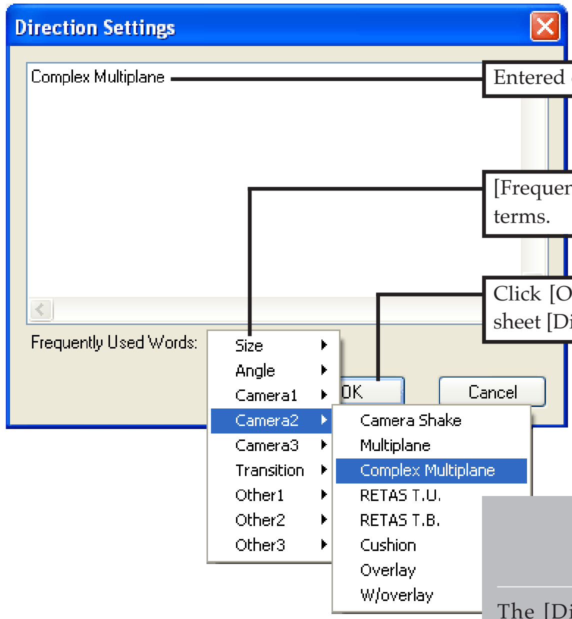

C-001-0001.sxf
Large
Direction

❶ Click [Show/Hide Direction Switch] to show or hide the [Direction] field.

❷ Double click anywhere within the [Direction] field to open the [Direction Settings] dialog box.

2. Enter the text in the Direction Settings dialog box.

The [Direction Settings] dialog box allows you to enter a shooting direction, for example, using the keyboard.


Direction Settings
Complex Multiplane
Frequently Used Words:
Size
Angle
Camera1
Camera2
Camera3
Transition
Other1
Other2
Other3
Camera Shake
Multiplane
Complex Multiplane
RETAS T.U.
RETAS T.B.
Cushion
Overlay
W/overlay
OK
Cancel

Entered content

[Frequently Used Words] allows you to select various terms.

Click [OK] to reflect the entered content onto the X-sheet [Direction] column.

Tips

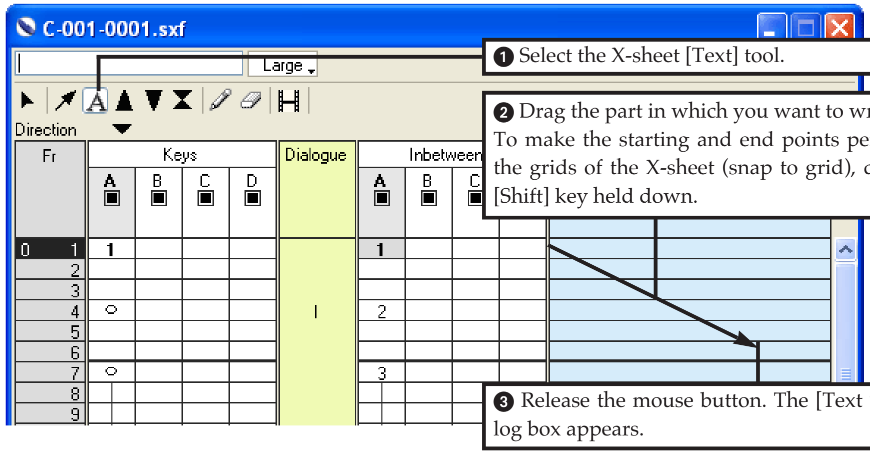
The [Direction Settings] dialog box can also be opened by selecting [Sheet Settings] → [Direction] from the [X-sheet] menu.

Entering a shooting direction 2

The procedure to create a text box on the X-sheet using the [Text] tool and enter a text in it is as follows. This is mainly used for entering shooting directions in the [Camera] column.

1. Select the Text tool.

Select the X-sheet [Text] tool and create a text box.


C-001-0001.sxf
Large
Direction
Fr
Keys
A
B
C
D
Dialogue
Inbetween
A
B
C
0
1
2
3
4
5
6
7
8
9

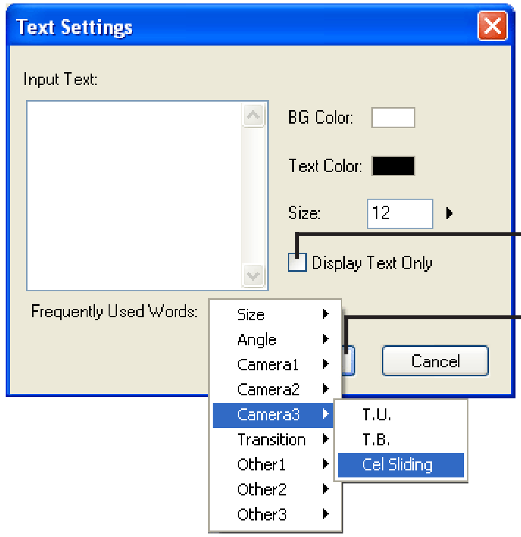
❶ Select the X-sheet [Text] tool.

❷ Drag the part in which you want to write a text. To make the starting and end points perfectly match the grids of the X-sheet (snap to grid), drag with the [Shift] key held down.

❸ Release the mouse button. The [Text Settings] dialog box appears.

2. Enter the direction in the Text Settings dialog box.

The [Text Settings] dialog box allows you to enter a text as well as configure settings.

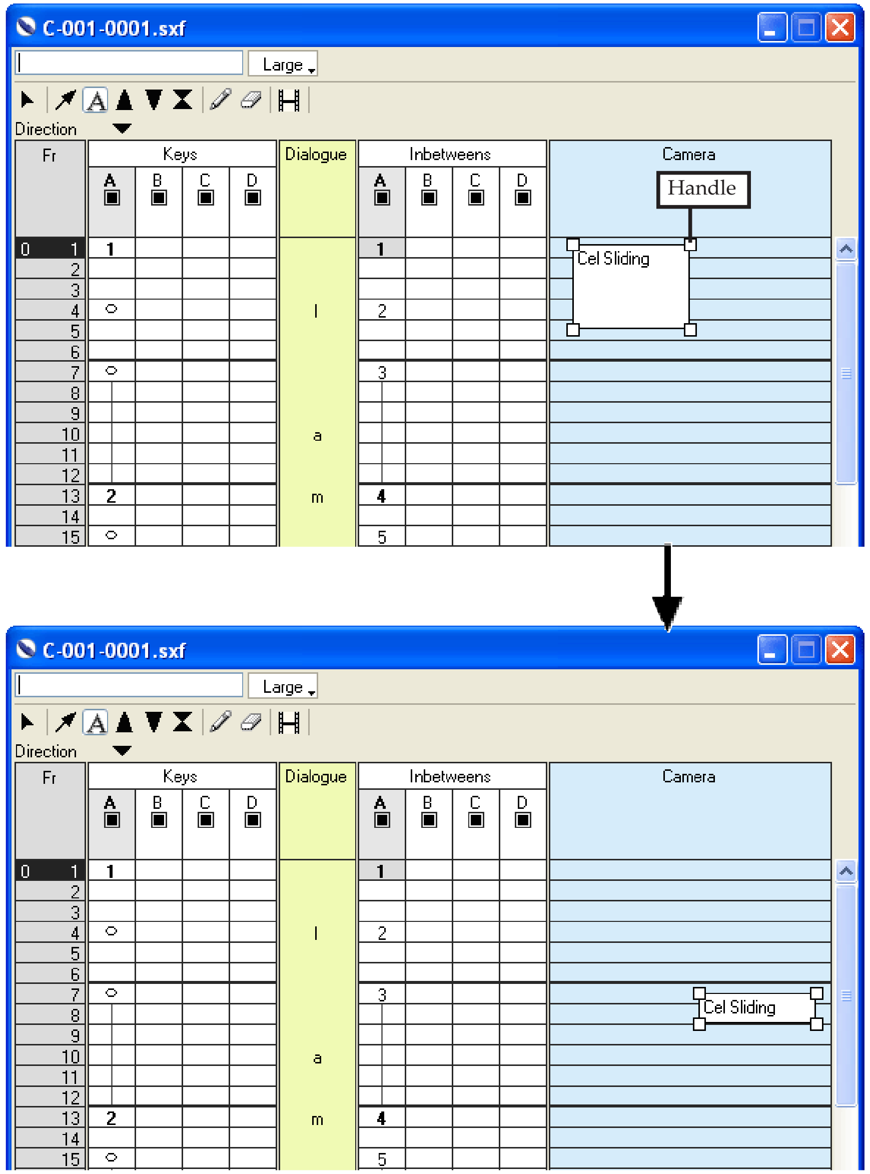

Text Settings
Input Text:
BG Color:
Text Color:
Size:
12
☐ Display Text Only
Frequently Used Words:
Size
Angle
Camera1
Camera2
Camera3
Transition
Other1
Other2
Other3
T.U.
T.B.
Cel Sliding
Cancel

Turns off the text box background color and shows only the text.

Click [OK] to reflect the entered content onto the text box.

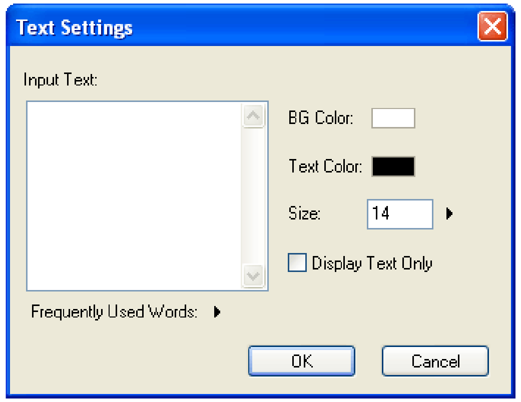
3. Moving and resizing the text box

To move, select the [Text] tool, place the mouse pointer anywhere within the text box and drag.
To resize, drag any of the handles at the corners of the text box.


C-001-0001.sxf
Large
Direction
Fr
Keys
Dialogue
Inbetweens
Camera
Handle
Cel Sliding

4. Reconfiguring the text settings

To edit the text or change the settings, double click the text box and open the [Text Settings] dialog box again.


Text Settings
Input Text:
BG Color:
Text Color:
Size: 14
☐ Display Text Only
Frequently Used Words:
OK
Cancel

Text Settings dialog box

- **[Input Text]**
  Enter the text from the keyboard.
- **[Frequently Used Words] popup menu**
  The popup menu allows you to enter terms frequently used in the production of animations through selection.
- **[BG Color]**
  Click the button to select the text box (the rectangular area in which the text is shown) color.
- **[Text Color]**
  Click the button to select the font color.
- **[Size]**
  Specify a font (letter) size in the 4 - 48 range.
- **[Display Text Only]**
  Select this check box to show only the text without showing the text box.
- **[OK] button**
  Confirms the settings.
- **[Cancel] button**
  Cancels the settings and closes the dialog box.

Tips

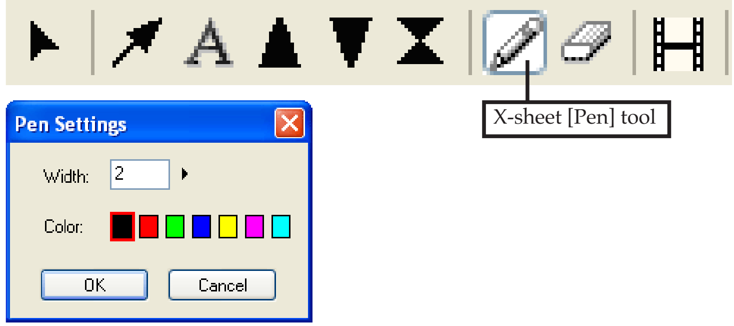
A text box cannot be created over multiple columns or moved from one column to another.

Entering a handwritten shooting direction

The procedure to use the graphics tablet pen and write a shooting direction directly on the X-sheet is as follows. This is convenient for writing directions difficult to enter using the text tool alone.

1. Select the Pen tool.

Select the X-sheet [Pen] tool.
Double click the [Pen] tool icon. The [Pen Settings] dialog box that allows you to select the pen size and the color appears. Selectable size ranges 1 - 10, and colors are: black, red, green, blue, yellow, pink, and light blue.



X-sheet [Pen] tool

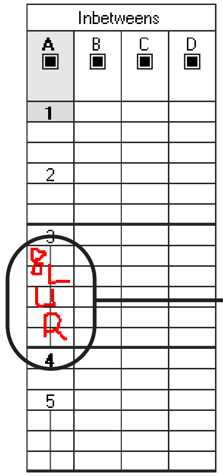
Pen Settings

Width: 2

Color: ■ 🟥 🟩 🟦 🟨 ■ ■

2. Write with the pen.

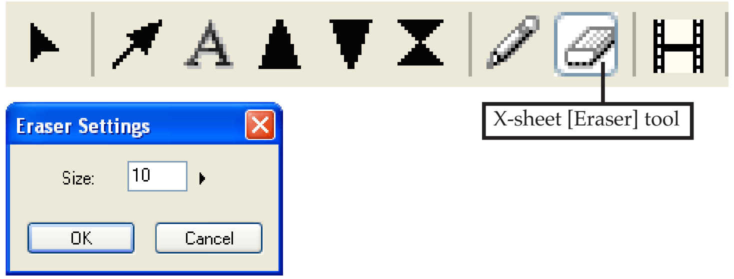
Use the graphics tablet pen and write the shooting direction, for example, in any of the columns among [Keys], [Inbetweens], [Dialogue], and [Camera].



Example of handwritten direction

3. Erasing a handwritten direction

Handwritten directions can be erased using the X-sheet [Eraser] tool.
Double click the [Eraser] tool icon. The [Eraser Settings] dialog box that allows you to select the eraser size in the 1 - 20 range appears.
When erasing, it may appear as if the whole data cell(s) is (are) erased. However, the content of the data cell(s) remains and only the handwritten part will be erased.



X-sheet [Eraser] tool

Eraser Settings

Size: 10

Tips

A handwritten text cannot extend over multiple columns.

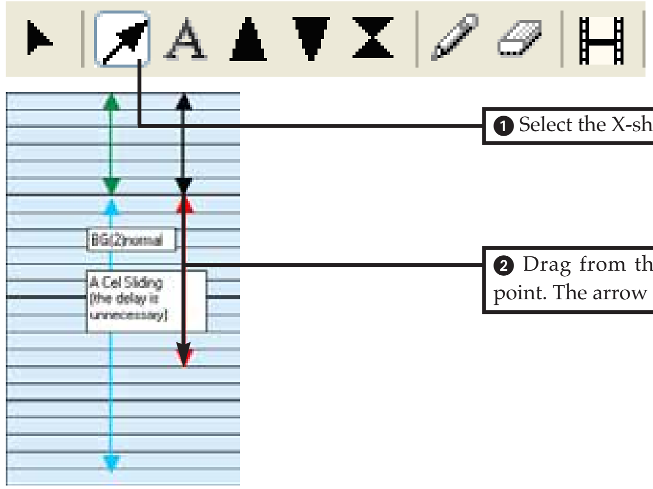
Creating an arrow

The procedure for adding an arrow of a shooting direction such as T. U. (track up) to the Camera column is as follows.

1. Select the Arrow tool and drag.

Select the [X-sheet] window [Arrow] tool and drag it from the starting point to the end point of the arrow you want to draw.

To make the starting and end points perfectly match the grids of the X-sheet (snap to grid), drag with the [Shift] key held down.



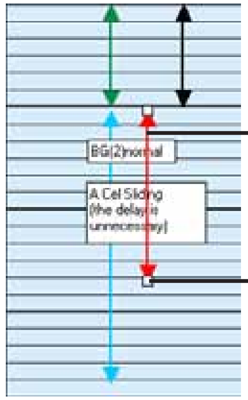
❶ Select the X-sheet [Arrow] tool.

❷ Drag from the starting point to the end point. The arrow will be added.

2. Moving the arrow

To move the arrow position, select the arrow with the [Arrow] tool and drag.

To change the arrow's length or angle, drag one of its handles.

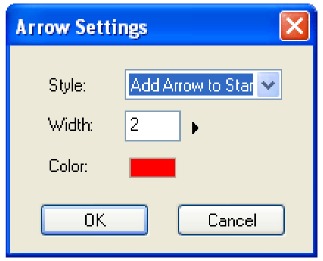


Select the arrow to move.

Handle

3. Configuring the detailed arrow settings

Select the [Arrow] tool and double click the arrow on the X-sheet. The [Arrow Settings] dialog box that allows you to configure the detailed settings appears.



Arrow Settings

Style: Add Arrow to Star

Width: 2

Color: 🟥

- **[Style]**
  Select the place to add the arrow from among the following options.
  [Add Arrow to Starting Point], [Add Arrow to End Point], [Add Arrow to Starting and End Points]
- **[Width]**
  Specify the line width.
- **[Color]**
  Click the [Foreground Color] button to open the Color Settings panel. Selecting a color there changes the line color.
- **[OK] button**
  Confirms the settings.
- **[Cancel] button**
  Cancels the settings and closes the dialog box.

4. Deleting an arrow

To delete an arrow, select the arrow with the [Arrow] tool and press [Delete].

Tips

An arrow cannot be created over multiple columns or moved from one column to another.

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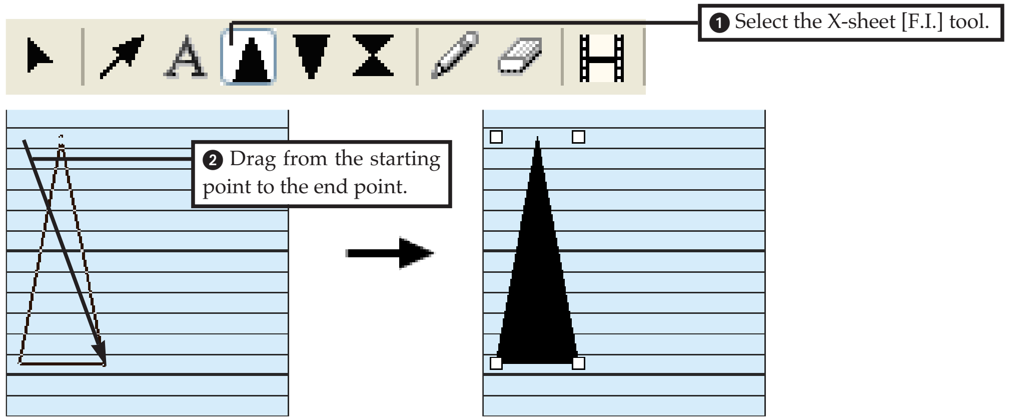
Entering an optical markup sign

The procedure for drawing an [F.I. (Fade In)], [F.O. (Fade Out)], or [O.L. (Overlap)] markup sign is as follows. The procedure explained here is for [F.I. (Fade In)]. However, it is the same for [F.O. (Fade Out)] and [O.L. (Overlap)].

1 Select the [F.I. (Fade In)] tool.

Select the [X-sheet] window [F.I.] tool and drag it from the starting point to the end point of the F.I. markup sign you want to draw.
To make the starting and end points perfectly match the grids of the X-sheet (snap to grid), drag with the [Shift] key held down.

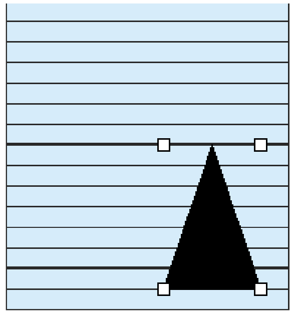


❶ Select the X-sheet [F.I.] tool.

❷ Drag from the starting point to the end point.

2. Moving a F.I. (Fade In) markup sign

To move, select the [F.I.] tool and drag the F.I. markup sign.
To change the F.I. markup sign's length or angle, drag one of its handles.



3. Deleting a F.I. (Fade In) markup sign

To delete a F.I. markup sign, select the F.I. markup sign with the [F.I.] tool and press [Delete].

Tips

A markup sign cannot be created over multiple columns or moved from one column to another.

Importing a sound file

The procedure for importing a sound file to the [Sound] column and playing it along with the images is as follows.

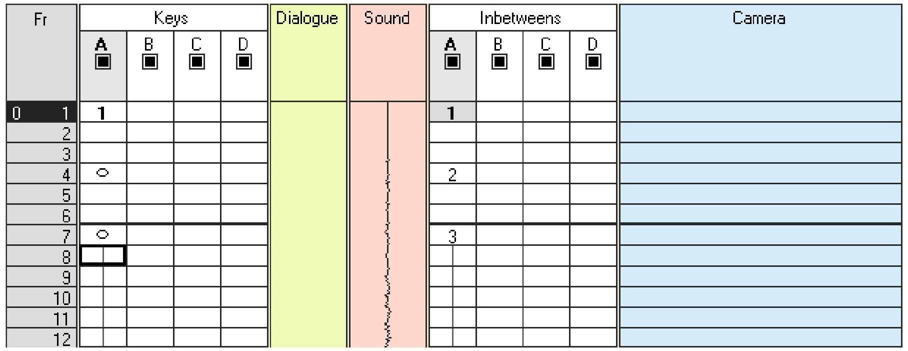
Supported formats: WAV, AIF, AIFF

1. Select a sound file.

Select [Sound] → [Import...] from the [X-Sheet] menu. The [Open] dialog box appears.
In the [Open] dialog box, select the sound file to import to the [Sound] column.

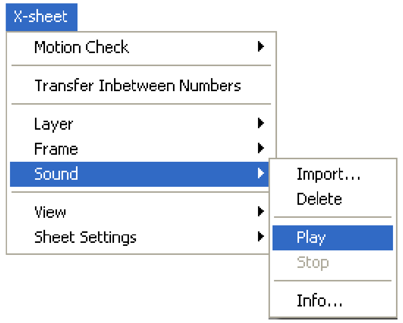
2. Import and show the sound file.

When the import is complete, the sound wave is shown in the X-sheet [Sound] column.


Fr
Keys
A
B
C
D
Dialogue
Sound
Inbetweens
A
B
C
D
Camera
0
1
2
3
4
5
6
7
8
9
10
11
12
1
1
2
3

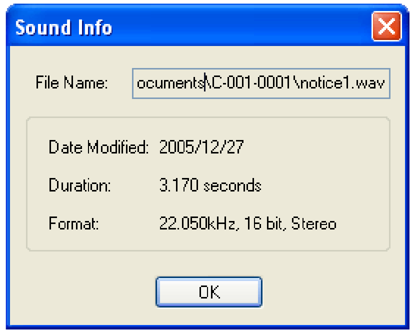
3. Play the sound file.

To play the imported sound file, select [Sound] → [Play] from the [X-Sheet] menu. To stop playing, select [Stop].


X-sheet
Motion Check
Transfer Inbetween Numbers
Layer
Frame
Sound
View
Sheet Settings
Import...
Delete
Play
Stop
Info...

4. Showing the sound file information

Select [Sound] → [Info...] from the [X-sheet] menu. The [Sound Info] dialog box appears.


Sound Info
OK

File Name: ocuments\C-001-0001\notice1.wav

Date Modified: 2005/12/27

Duration: 3.170 seconds

Format: 22.050kHz, 16 bit, Stereo

- **[File Name]**
  Shows the location and filename of the sound file.
- **[Date Modified]**
  Shows the date the sound file was last modified.
- **[Duration]**
  Shows the duration of the sound file.
- **[Format]**
  Shows the sampling rate of the sound file and whether it is a mono or stereo sound.

5. Deleting a sound file

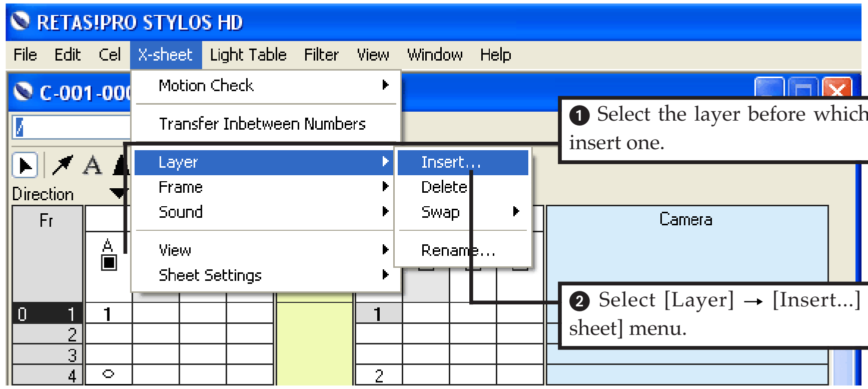
To delete an imported sound file, select [Sound] → [Delete] from the [X-Sheet] menu.

Editing a Layer (column)

The procedures for inserting, deleting, swapping and renaming a layer are as follows.

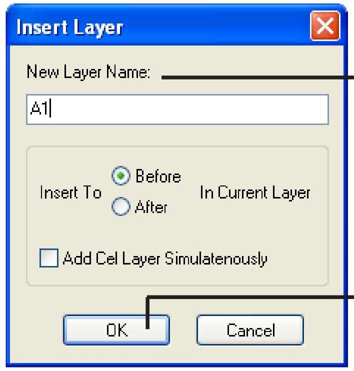
Inserting a layer

The procedure for inserting a layer is as follows.


RETAS!PRO STYLOS HD
File
Edit
Cel
X-sheet
Light Table
Filter
View
Window
Help
C-001-000
Motion Check
Transfer Inbetween Numbers
Layer
Frame
Sound
View
Sheet Settings
Insert...
Delete
Swap
Rename...
Direction
Fr
A
Camera

❶ Select the layer before which you want to insert one.

❷ Select [Layer] → [Insert...] from the [X-sheet] menu.


Insert Layer
OK
Cancel

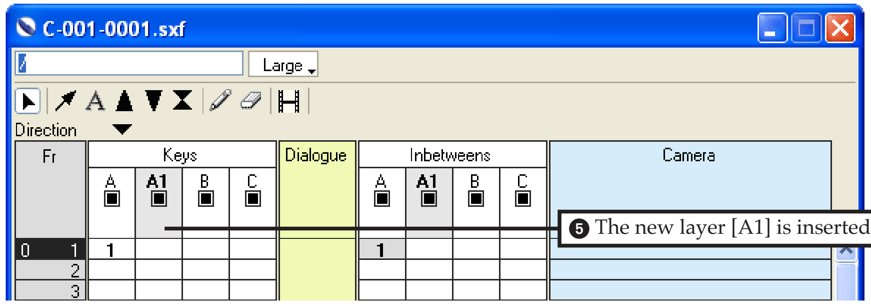
New Layer Name: A1

Insert To ● Before ○ After In Current Layer

☐ Add Cel Layer Simulatenously

❸ Specify the layer name and position to insert in the [Insert Layer] dialog box.

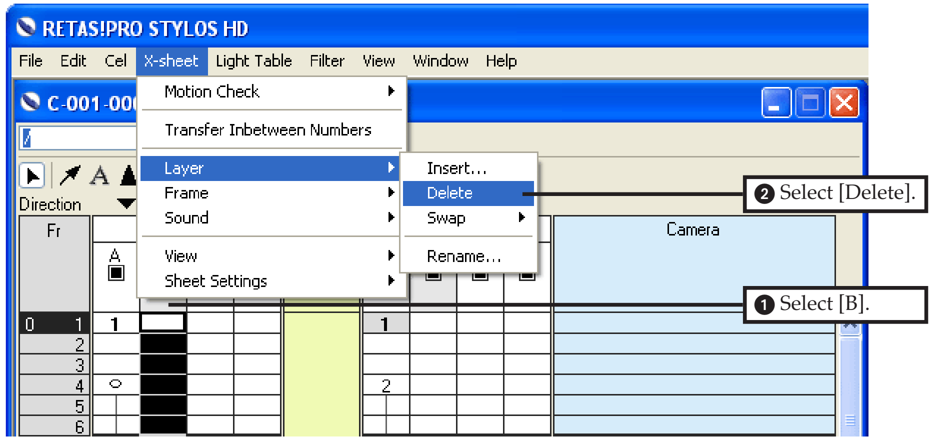
❹ Click [OK] to insert the layer in the specified position.


C-001-0001.sxf
Large
Direction
Fr
Keys
A
A1
B
C
Dialogue
Inbetweens
A
A1
B
C
Camera

❺ The new layer [A1] is inserted.

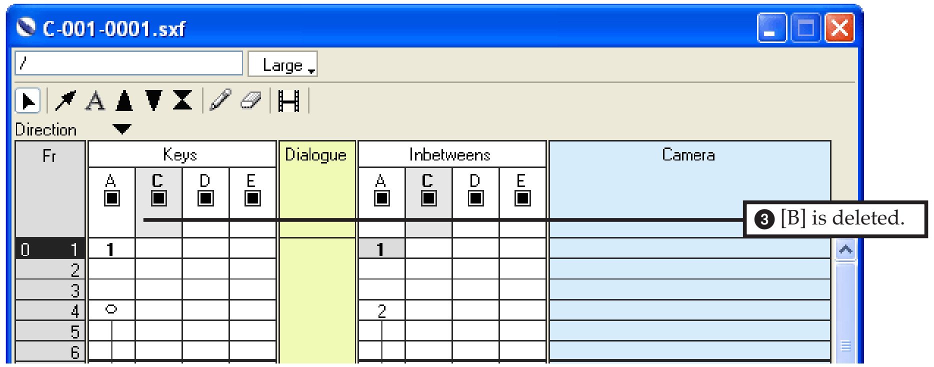
Deleting a layer

To delete, select the layer you want to delete and then [Layer] → [Delete] from the [X-sheet] menu.


RETAS!PRO STYLOS HD
File Edit Cel X-sheet Light Table Filter View Window Help
C-001-00
Motion Check
Transfer Inbetween Numbers
Layer
Frame
Sound
View
Sheet Settings
Insert...
Delete
Swap
Rename...
Direction
Fr
A
Camera

❷ Select [Delete].

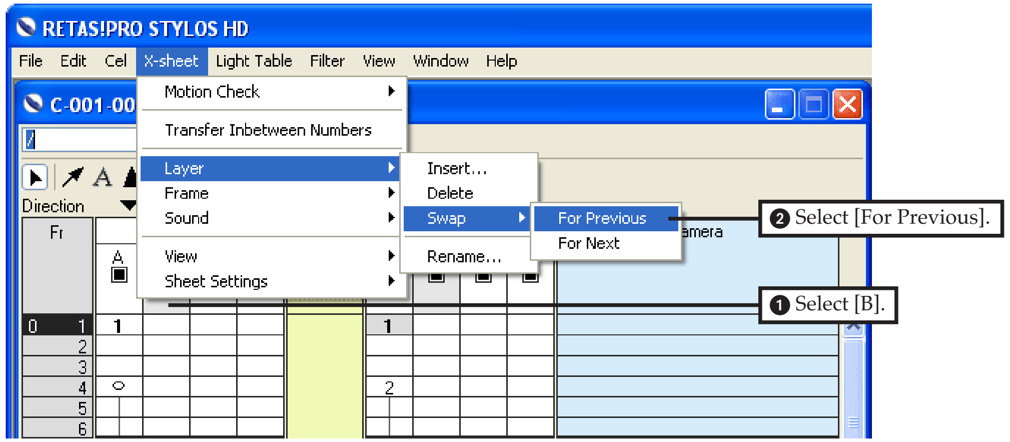
❶ Select [B].


C-001-0001.sxf
Large
Direction
Fr
Keys
Dialogue
Inbetweens
Camera
A C D E
A C D E

❸ [B] is deleted.

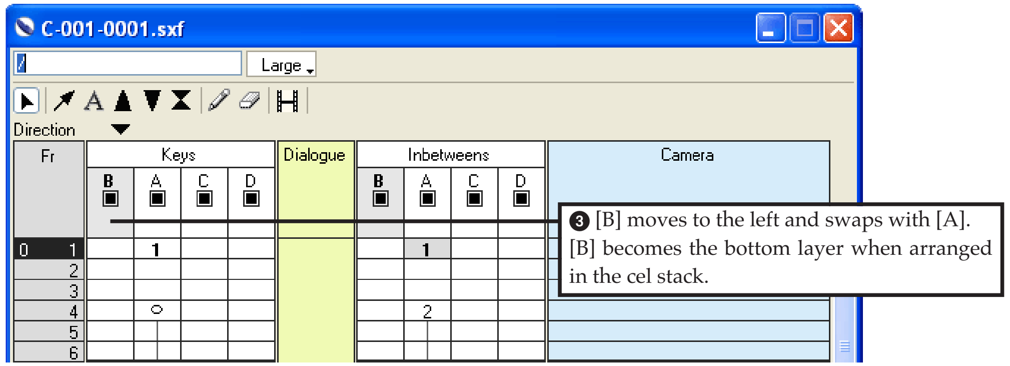
Swapping Layers

To swap, select the layer you want to move and then [Layer] → [Swap] from the [X-sheet] menu.


RETAS!PRO STYLOS HD
File Edit Cel X-sheet Light Table Filter View Window Help
C-001-00
Motion Check
Transfer Inbetween Numbers
Layer
Frame
Sound
View
Sheet Settings
Insert...
Delete
Swap
Rename...
For Previous
For Next
Direction
Fr
A

❷ Select [For Previous].

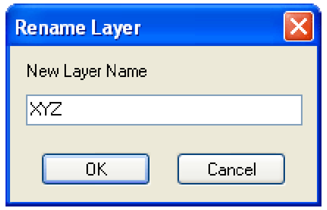
❶ Select [B].

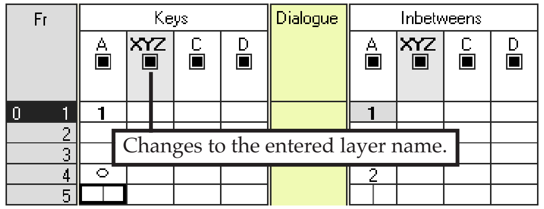

C-001-0001.sxf
Large
Direction
Fr
Keys
Dialogue
Inbetweens
Camera
B A C D
B A C D

❸ [B] moves to the left and swaps with [A]. [B] becomes the bottom layer when arranged in the cel stack.

Renaming a layer

To rename, select the layer you want to rename and then [Layer] → [Rename...] from the [X-sheet] menu.
Enter the new name in [New Layer Name] of the [Rename Layer] dialog box. Letters are shown up to third one.
Click [OK] to confirm the new layer name.


Rename Layer
New Layer Name
XYZ
OK
Cancel


Fr
Keys
Dialogue
Inbetweens
A XYZ C D
A XYZ C D

Changes to the entered layer name.

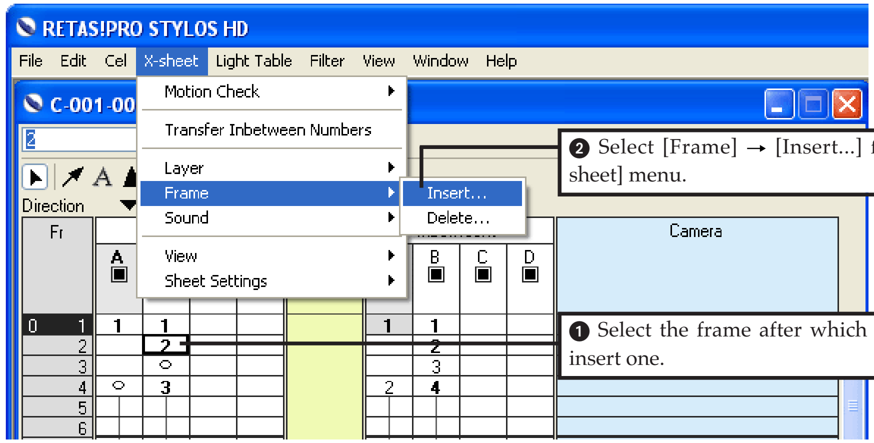
Chapter 1
Chapter 2
Chapter 3
Chapter 4
Chapter 5
Chapter 6
Chapter 7
Chapter 8
Chapter 9
Chapter 10
Chapter 11
Chapter 12
Chapter 13
Chapter 14
Chapter 15
Chapter 16
Chapter 17

Editing a Frame (row)

The procedures to insert and delete a frame are as follows.

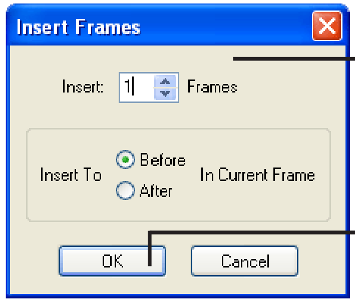
Inserting a frame

The procedure for inserting a frame is as follows.


RETAS!PRO STYLOS HD
File Edit Cel X-sheet Light Table Filter View Window Help
Motion Check
Transfer Inbetween Numbers
Layer
Frame
Sound
View
Sheet Settings
Insert...
Delete...
Direction
Fr
Camera

❷ Select [Frame] → [Insert...] from the [X-sheet] menu.

❶ Select the frame after which you want to insert one.

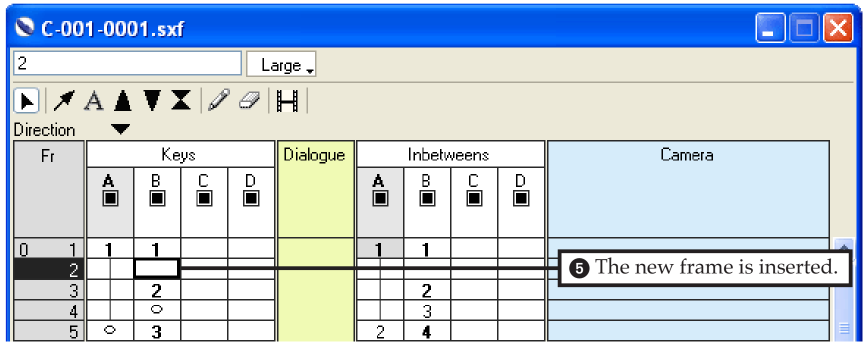

Insert Frames
OK
Cancel

Insert: 1 Frames

Insert To ● Before ○ After In Current Frame

❸ Specify the number of frames and position to insert in the [Insert Frame] dialog box.

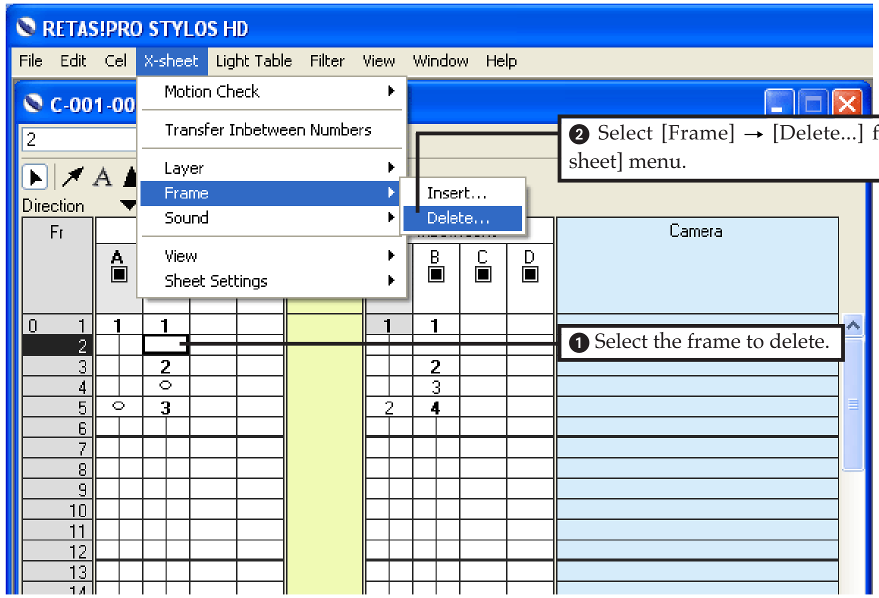
❹ Click [OK] to insert the frame in the specified position.


C-001-0001.sxf
Large
Direction
Fr
Keys
Dialogue
Inbetweens
Camera
A B C D

❺ The new frame is inserted.

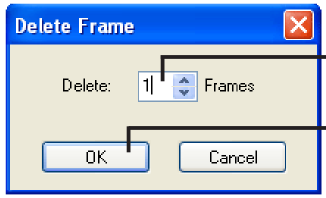
Deleting a frame

To delete, select the frame you want to delete and then [Frame] → [Delete...] from the [X-sheet] menu.


RETAS!PRO STYLOS HD
File Edit Cel X-sheet Light Table Filter View Window Help
Motion Check
Transfer Inbetween Numbers
Layer
Frame
Sound
View
Sheet Settings
Insert...
Delete...
Direction
Fr
Camera

❷ Select [Frame] → [Delete...] from the [X-sheet] menu.

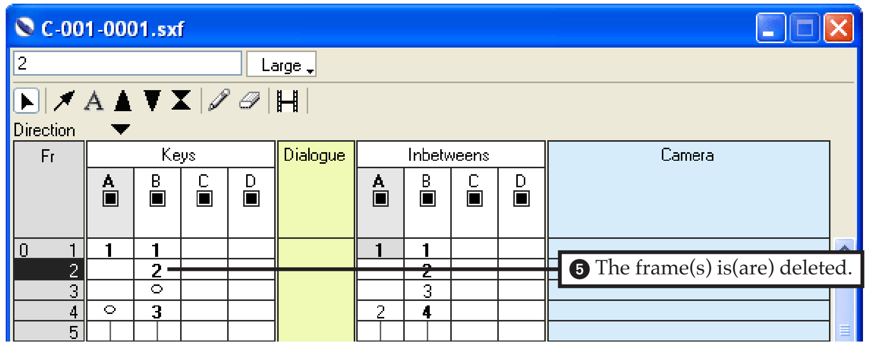
❶ Select the frame to delete.


Delete Frame
OK
Cancel

Delete: 1 Frames

❸ Specify the number of frames to delete in [Delete] of the [Delete Frame] dialog box.

❹ Click [OK] to delete the frame(s) from the specified position.


C-001-0001.sxf
Large
Direction
Fr
Keys
Dialogue
Inbetweens
Camera
A B C D

❺ The frame(s) is(are) deleted.

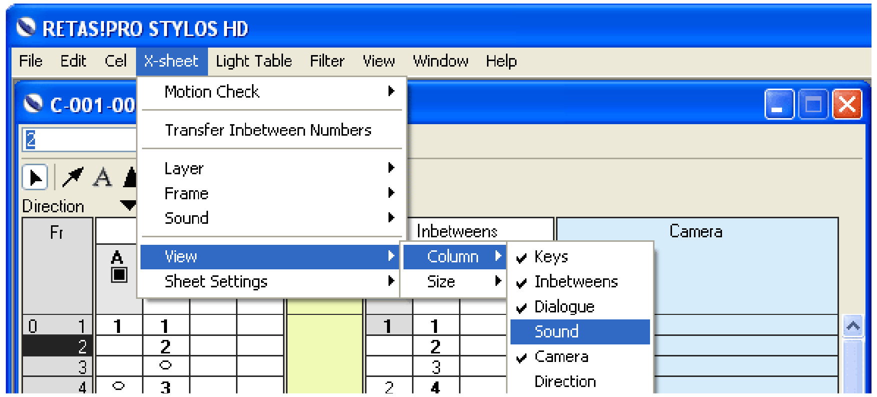
Chapter 1
Chapter 2
Chapter 3
Chapter 4
Chapter 5
Chapter 6
Chapter 7
Chapter 8
Chapter 9
Chapter 10
Chapter 11
Chapter 12
Chapter 13
Chapter 14
Chapter 15
Chapter 16
Chapter 17

Viewing the X-sheet

The procedures for showing/hiding an X-sheet column and changing its size are as follows.
The view can be changed dynamically depending on your needs.

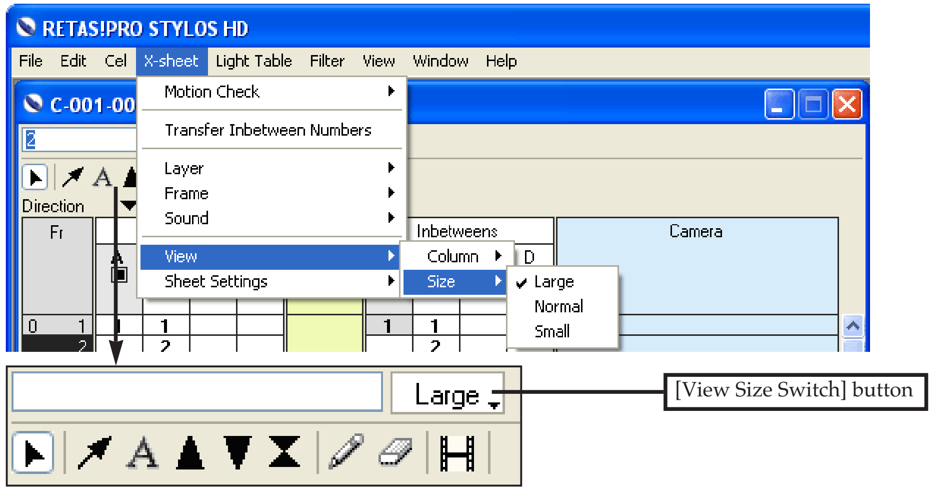
Showing/Hiding a column

To show/hide a column, select/deselect the corresponding item (column) from [View] → [Column] under the [X-sheet] menu. Selected items are those visible. [Sound] is hidden in the default settings.


RETAS!PRO STYLOS HD
File
Edit
Cel
X-sheet
Light Table
Filter
View
Window
Help
C-001-00
Motion Check
Transfer Inbetween Numbers
Layer
Frame
Sound
View
Sheet Settings
Column
Size
Keys
Inbetweens
Dialogue
Sound
Camera
Direction
Direction
Fr
Inbetweens
Camera

Changing the size

To select a view size from among Large, Normal, and Small, use either of the following methods.
- Select from [View] → [Size] under the [X-sheet] menu.
  The selected size is applied.
- Press the X-sheet [View Size Switch] button.

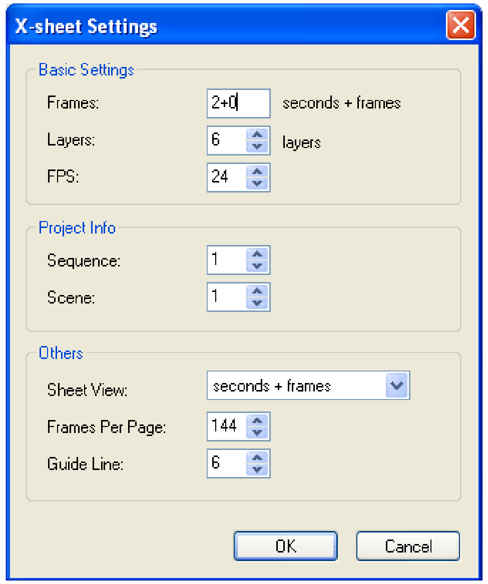

RETAS!PRO STYLOS HD
File
Edit
Cel
X-sheet
Light Table
Filter
View
Window
Help
C-001-00
Motion Check
Transfer Inbetween Numbers
Layer
Frame
Sound
View
Sheet Settings
Column
Size
Large
Normal
Small
Direction
Fr
Inbetweens
Camera
Large
[View Size Switch] button

Changing the X-sheet settings

The procedure for changing the X-sheet detailed settings is as follows.

1. X-sheet settings

Select [Sheet Settings] → [General...] from the [X-sheet] menu. The [X-sheet Settings] dialog box that allows you to configure the basic settings, the project information, and other details appears.


X-sheet Settings
OK
Cancel

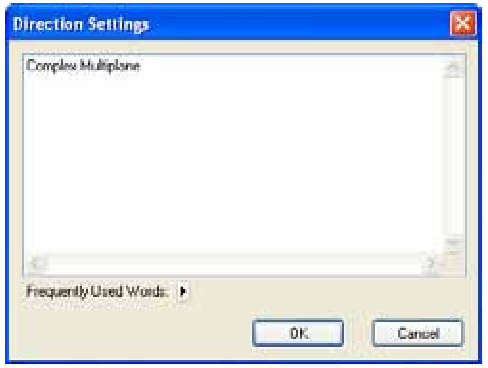
Basic Settings
Frames: 2+0 seconds + frames
Layers: 6 layers
FPS: 24

Project Info
Sequence: 1
Scene: 1

Others
Sheet View: seconds + frames
Frames Per Page: 144
Guide Line: 6

2. Direction settings

Select [Sheet Settings] → [Direction...] from the [X-sheet] menu. The [Direction Settings] dialog box that allows you to change the direction column content appears.


Direction Settings
Complex Multiplane
Frequently Used Words
OK
Cancel

Saving an X-sheet

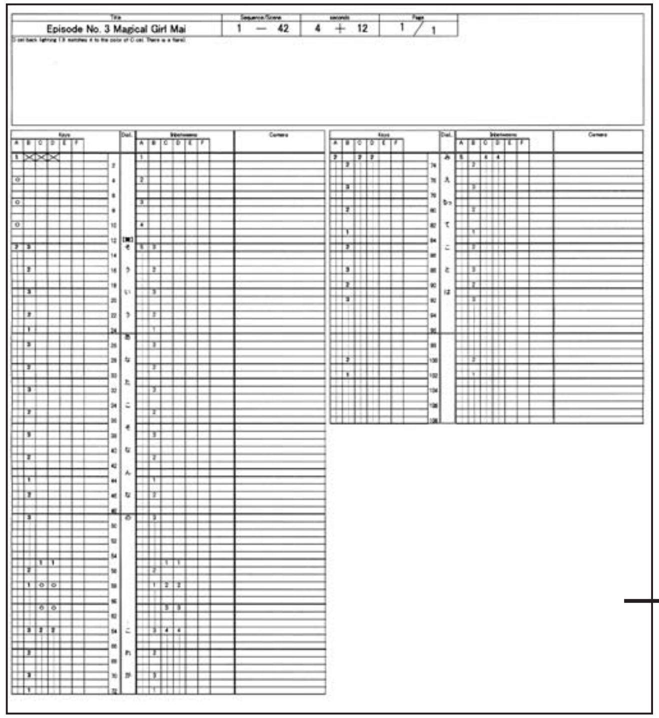
Select [Save] from the [File] menu.
Save frequently to reduce the amount of data loss in case of power failure or computer problem.

Reverting an X-sheet

Select [Revert] from the [File] menu.
The X-sheet is returned to the last saved content. Use this command to recover from a wrong operation or when you want to discard all the changes made.

Printing an X-sheet

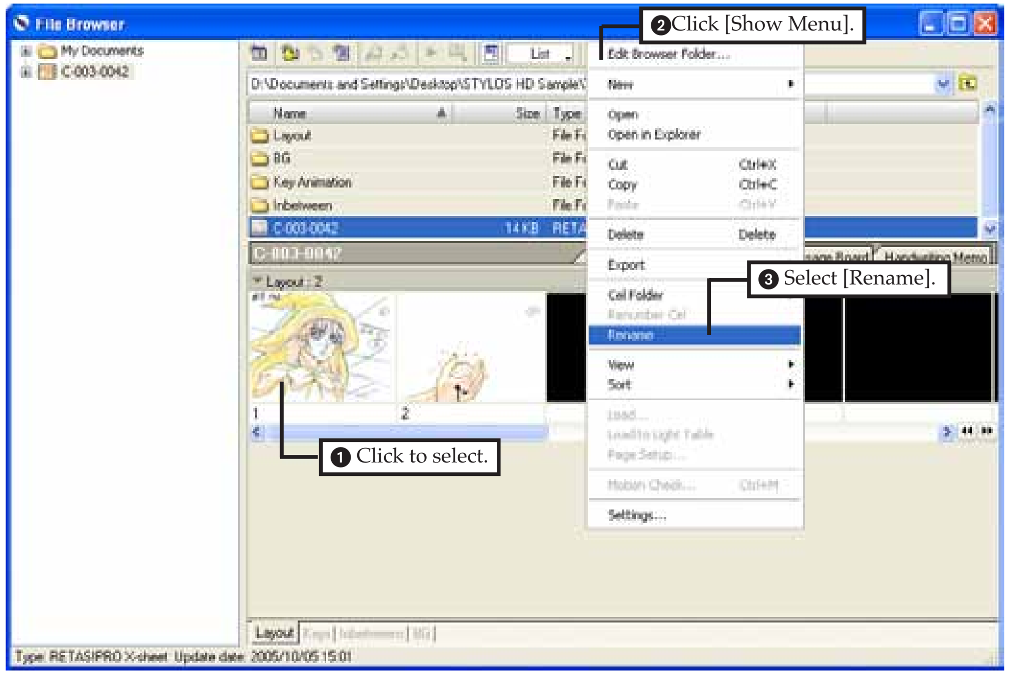
Open the X-sheet you want to print by double clicking its icon. Select [Page Setup...] from the [File] menu and configure the page settings.
Then, select [Print...] from the [File] menu. For details on the setting items in each dialog box, refer to the OS or printer manual.


Episode No. 3 Magical Girl Mai
1 — 42
4 + 12
1 / 1

Printed X-sheet

Renaming an X-sheet

Select the X-sheet to rename by double clicking its icon on the [File Browser]. Then click the [Show Menu] button on the [File Browser] and select [Rename]. The name field below the icon turns blue indicating you can retype on it.


File Browser
My Documents
C-003-0042
List
D:\Documents and Settings\Desktop\STYLOS HD Sample\
Name
Size
Type
Layout
BG
Key Animation
Inbetween
C-003-0042
14 KB
Layout : 2
1
2
Edit Browser Folder...
New
Open
Open in Explorer
Cut Ctrl+X
Copy Ctrl+C
Paste Ctrl+V
Delete Delete
Export
Cel Folder
Renumber Cel
Rename
View
Sort
Load...
Load to Light Table
Page Setup...
Motion Check... Ctrl+M
Settings...
Handwriting Memo
Layout

Type: RETAS!PRO X-sheet Update date: 2005/10/05 15:01

❷Click [Show Menu].

❸ Select [Rename].

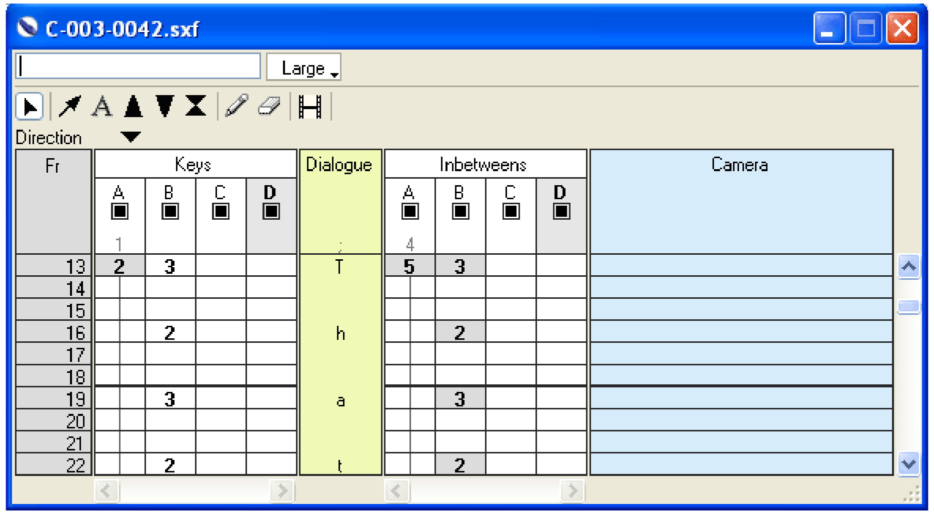
❶ Click to select.

Deleting an X-sheet

Select the icon of the X-sheet you want to delete from the [File Browser] and press [Delete]. A confirmation dialog box appears. Select [Yes] to confirm the deletion.

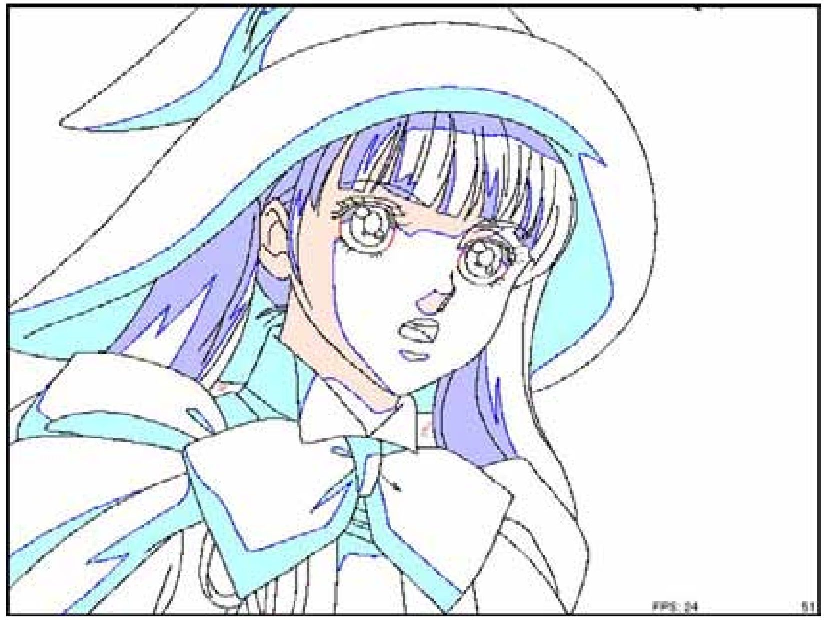
Motion Check function

This function allows you to perform a motion check according to the timings and cel stacking indicated in the X-sheet.



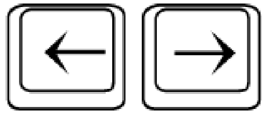
C-003-0042.sxf

Fr	Keys				Dialogue	Inbetweens				Camera
	A	B	C	D		A	B	C	D	
	1					4				
13	2	3			T	5	3			
14										
15										
16		2			h		2			
17										
18										
19		3			a		3			
20										
21										
22		2			t		2			

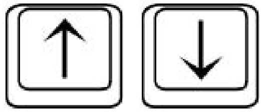


Frame-by-frame advance using the Arrow key

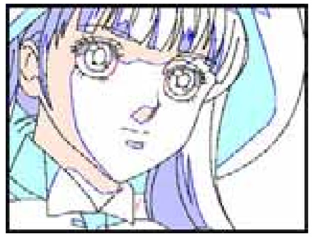
Click the arrow key to advance the images frame-by-frame.



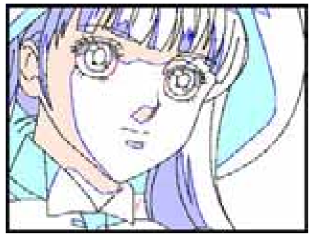
Advances the images by one frame at a time unconditionally.



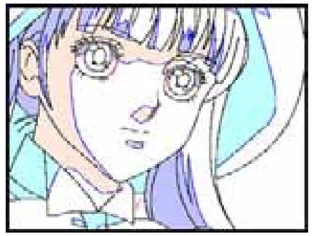
Advances the images by frames, skipping those without any changes.



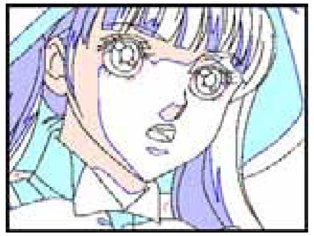
Frame 48



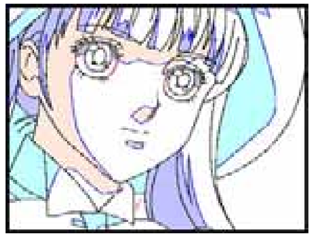
Frame 49



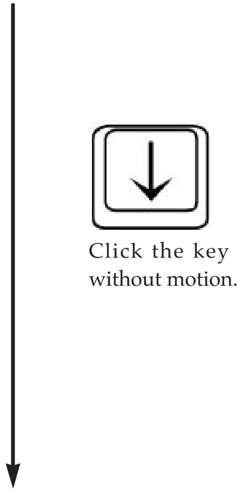
Frame 50



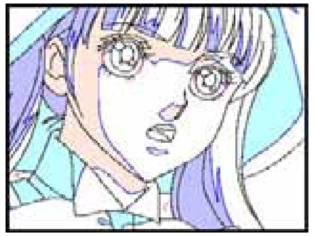
Frame 51



Frame 48



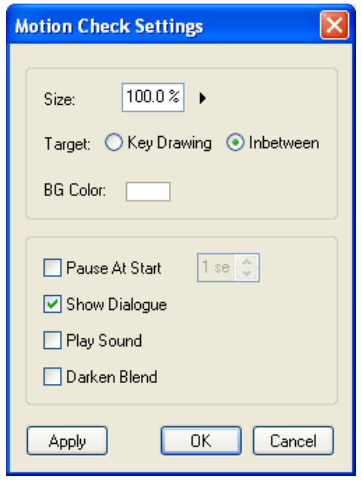
Click the key to skip frames without motion.



Frame 51

Configuring a Motion Check

Select [Motion Check] → [Settings...] from the [X-Sheet] menu. The Motion Check Settings dialog box appears. Configure the Motion Check settings.



Size: 100.0 %

Target: ○ Key Drawing ● Inbetween

BG Color:

☐ Pause At Start 1 se

☑ Show Dialogue

☐ Play Sound

☐ Darken Blend

- **[Size]**
  Specify the size in which the images will be shown.
- **[Target]**
  Select whether the images to show will be [Key Drawing] or [Inbetween] using the radio buttons.
- **[BG Color]**
  Click the [Foreground Color] button to open the Color Settings panel. The color selected there will be used as the BG color for the images to be shown.

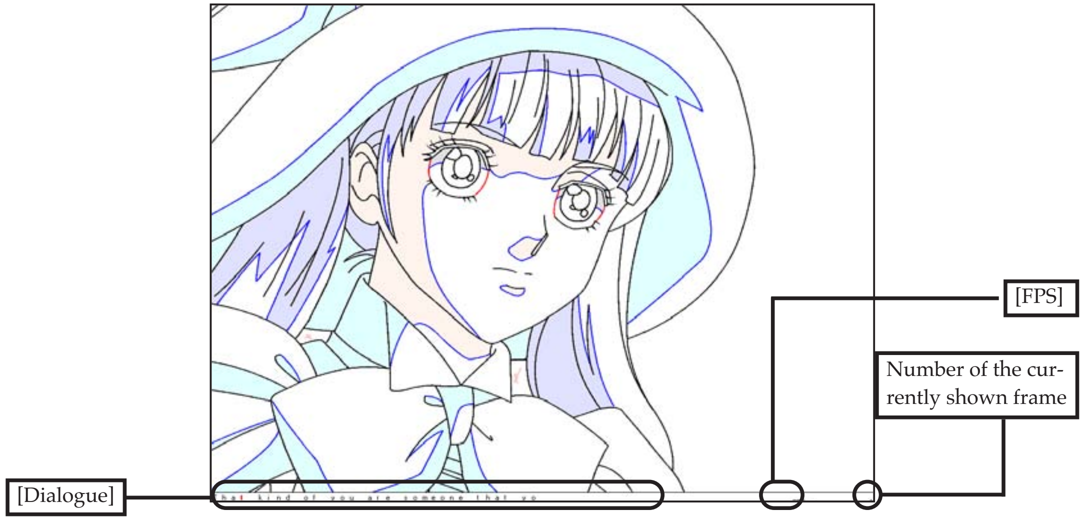
* The following items are items enabled by selecting the corresponding check box.

- **[Pause At Start]**
  Select this check box to set the number of seconds to wait before starting the Motion Check.
- **[Show Dialogue]**
  Shows the dialogue in the [Dialogue] column at the lower left of the screen according to the X-sheet settings.
- **[Play Sound]**
  Plays the sound data registered in the [Sound] column.
- **[Darken Blend]**
  Compares the pixels of the two layers to composite and composites with the darker one.

- **[Apply]**
  Executes the Motion Check.
- **[OK]**
  Confirms the settings which will be reflected on the Motion Check to execute.
- **[Cancel]**
  Cancels the settings and closes the dialog.

Executing a Motion Check

To execute the Motion Check, click the [Motion Check] button on the X-sheet or select [Motion Check] → [Apply] from the [X-sheet] menu.



- **[Dialogue]**
  The text in the [Dialogue] column are shown according to the X-sheet timing.
- **[FPS]**
  Indicates the FPS (actual value) of the images being played. The FPS is not shown during pauses.
- **[Current Frame Number]**
  Indicates the number of the frame currently shown on the screen. This indication is convenient for checking the current frame number at a pause or at a motion check by the frame.

Adjusting the playback speed from the keyboard

The following keyboard operations are available during a Motion Check.

[Space]	Pause and Play
[Esc]	Stop
[Left]	Show previous frame
[Right]	Show next frame

These keyboard operations are for playing according to the X-sheet by the frame.

[Up]	Show previous frame with a difference in the image
[Down]	Show next frame with a difference in the image

These keyboard operations are useful for checking an X-sheet with few changes in the images as when a Step in 3's is used.

Changes the playback FPS.

[1]	30 fix
[2]	25 fix
[3]	24 fix
[4]	12 fix
[5]	10 fix
[6]	8 fix
[7]	According to the X-sheet setting

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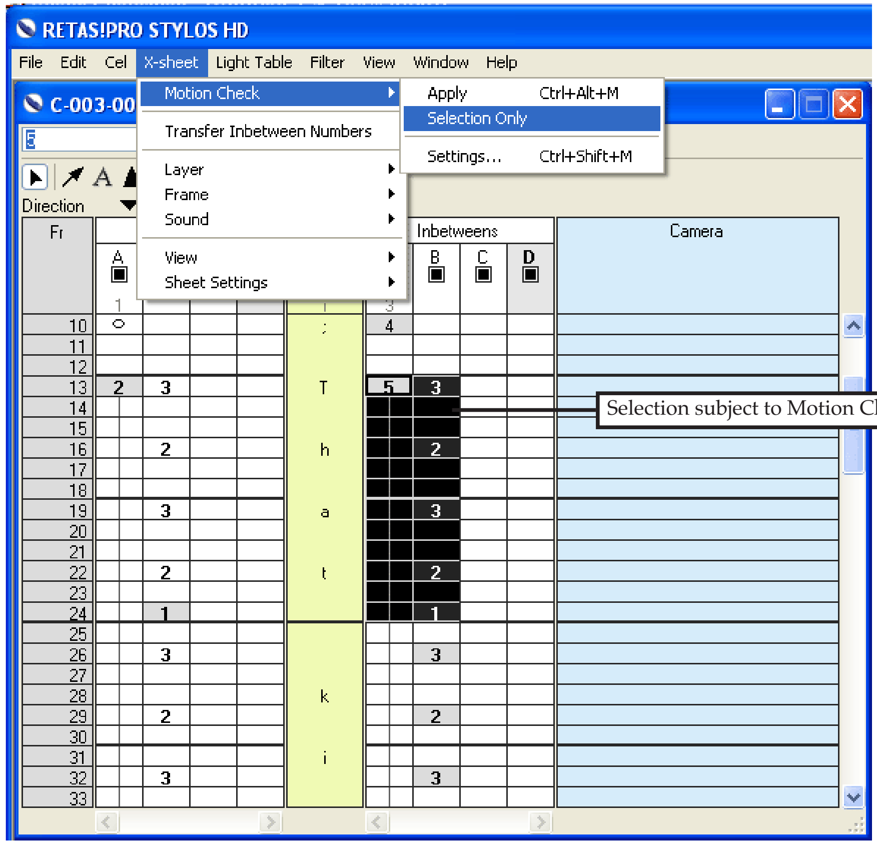
Executing a Motion Check for a selected part

Select the part of the X-sheet you want to check. Select [Motion Check] → [Selection Only] from the [X-sheet] menu. The Motion Check is executed only for the selected part.


RETAS!PRO STYLOS HD
File
Edit
Cel
X-sheet
Light Table
Filter
View
Window
Help
C-003-00
Motion Check
Transfer Inbetween Numbers
Layer
Frame
Sound
View
Sheet Settings
Apply Ctrl+Alt+M
Selection Only
Settings... Ctrl+Shift+M
Direction
Fr
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A
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Selection subject to Motion Check

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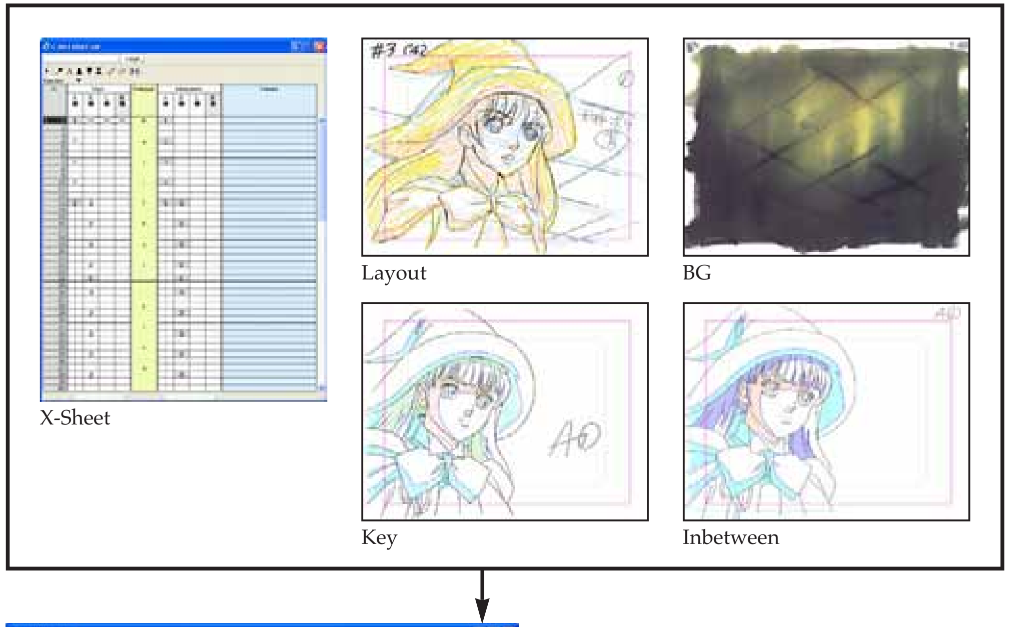
File Browser

What is a File Browser?

The [File Browser] is a GUI that allows you to browse the materials contained in a scene folder as well as manage the processing of files and folders.

It also allows you to register various information such as progress history, directions, and messages in the folder (traditionally written directly on the cover of the conventional scene folder or attached as separate memos) as well as browse them. Digitization of the directions and their inclusion to the [Scene Folder] realizes a completely paperless working environment as there is no more need to have the directions written on paper and convey them separately. With this system, directions can be conveyed by just sending the scene folder.



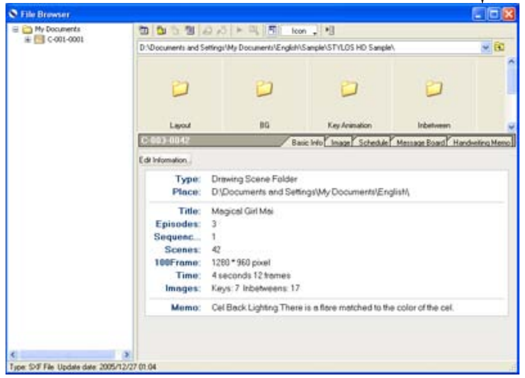
X-Sheet

Layout

BG

Key

Inbetween


File Browser
My Documents
C-001-0001
Icon
D:\Documents and Settings\My Documents\English\Sample\STYLOS HD Sample\
Layout
BG
Key Animation
Inbetween
C-003-0042
Basic Info
Image
Schedule
Message Board
Handwriting Memo
Edit Information

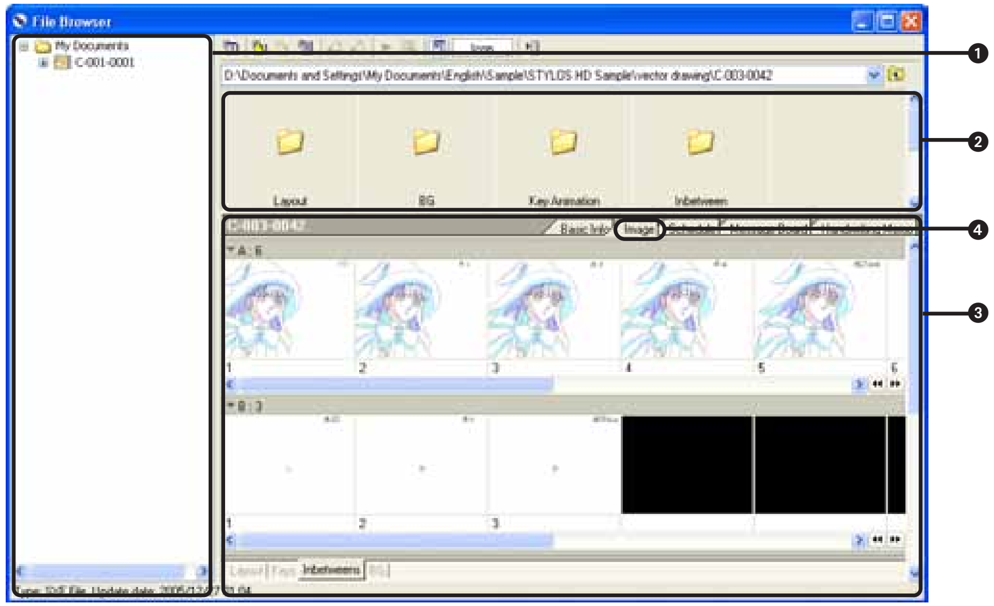
Type: Drawing Scene Folder
Place: D:\Documents and Settings\My Documents\English\
Title: Magical Girl Mai
Episodes: 3
Sequenc...: 1
Scenes: 42
100Frame: 1280 * 960 pixel
Time: 4 seconds 12 frames
Images: Keys: 7 Inbetweens: 17
Memo: Cel Back Lighting There is a flare matched to the color of the cel.

Type: SXF File Update date: 2005/12/27 01:04

File Browser

Name of the file browser parts

The file browser opens when you select [File Browser] from the [Window] menu.


File Browser
My Documents
C-001-0001
D:\Documents and Settings\My Documents\English\Sample\STYLOS HD Sample\vector drawing\C-003-0042
Layout
BG
Key Animation
Inbetween
C-003-0042
Basic Info
Image
A : 6
B : 3
Inbetweens
❶
❷
❸
❹

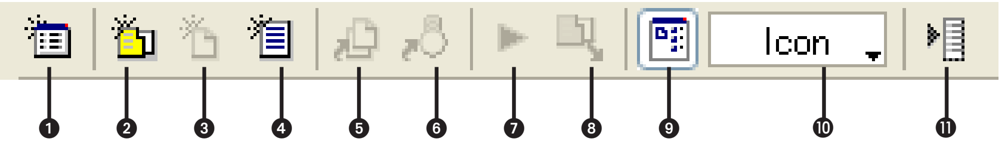
❶ **Tree View**
Shows the directory structure and the location of the scene folder in tree format.

❷ **File View**
Shows the files under the folder selected in the tree view.

❸ **Info View**
Area where the information in the [Basic Info], [Image], [Schedule], [Message Board], and [Handwriting Memo] tabs of the scene folder selected in the tree view is shown. Select the corresponding tab to switch the information shown.

❹ **Cel Bank**
[Cel Bank] is the name given to the view area of the [Image] tab under Info View, and is the area for showing images in the [Layout], [Keys], [Inbetweens], and [BG] folders.

Name of the file browser buttons



❶ **[Edit Browser Folder] button**
This button allows you to edit the scene folder location to browse from the [File Browser].

❷ **[New Scene Folder...] button**
This button allows you to create a new scene folder.

❸ **[New Cel...] button**
This button allows you to create a new drawing paper when a blank [Cel Bank] column is selected.

❹ **[New X-sheet...] button**
This button allows you to create a new X-sheet for the selected scene folder.

❺ **[Load...] button**
This button allows you to load an image file to a blank [Cel Bank] column.

❻ **[Load to Light Table] button (Only STYLOS HD/PaintMan HD)**
This button allows you to load a layout, key, inbetween, and/or BG to the light table from the [Cel Bank]. (Make sure you have switched the light table set to a set without any image in it by using the [Switch Light Table Set] button on the [Light Table Palette] in advance.)

❼ **[Motion Check...] button**
This button opens the [Motion Check Settings] dialog box. Clicking [OK] after configuring the settings starts the Motion Check. (Same as [Motion Check...] under the [View] menu.)

❽ **[Export Painting...] button (STYLOS HD)**
This button allows you to convert the selected scene folder for drawings or images into a scene folder or images suitable for painting.
[Export Raster...] button (Only TraceMan HD/PaintMan HD)
This button allows you to convert the images in the selected scene folder into raster images of a different format.

❾ **[Show/Hide Tree View] button**
This button allows you to toggle between show and hide tree view at every click.

❿ **[File View Switch]**
This switch allows you to select the way to show the File View from among [Icon], [Details], and [List].

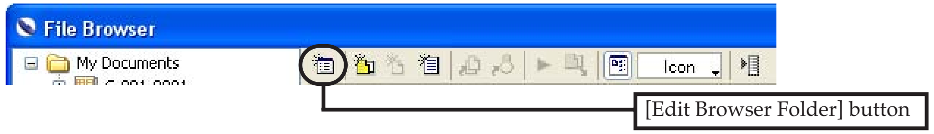
⓫ **[Show Menu] button**
This button allows you to open the file browser menu.

Editing the browser folder

The procedure for registering the location where the scene folder is stored for you to be able to search and manage the scene folders using the file browser is as follows.

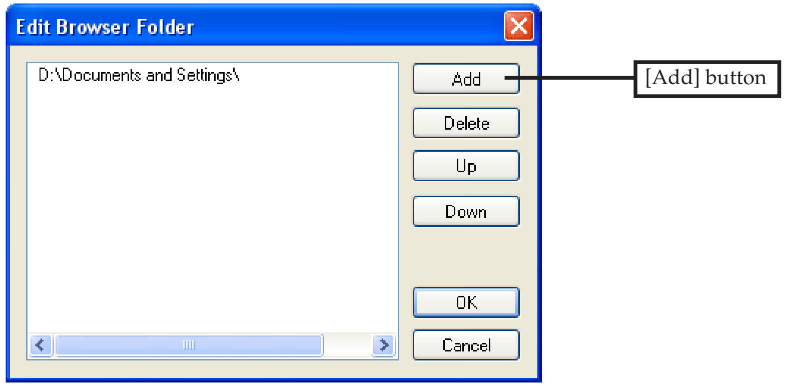
1. Select the Edit Browser Folder button.

Click [Edit Browser Folder] on the [File Browser].



2. Open the [Edit Browser Folder] dialog box.

Click [Add] on the opened [Edit Browser Folder] dialog box.



- **[Add] button**
  Clicking this button opens the [Browse Folder] dialog box.
- **[Delete] button**
  Clicking this button when an entry is selected in the list at the left (enclosed in blue frame), deletes the entry.
- **[Up]/[Down] button**
  Clicking the [Up]/[Down] button when an entry is selected in the list at the left (enclosed in blue frame), moves the entry up/down changing its order in the list.

- **[OK] button**
  Confirms the settings and closes the dialog box.
- **[Cancel] button**
  Cancels the settings and closes the dialog box.

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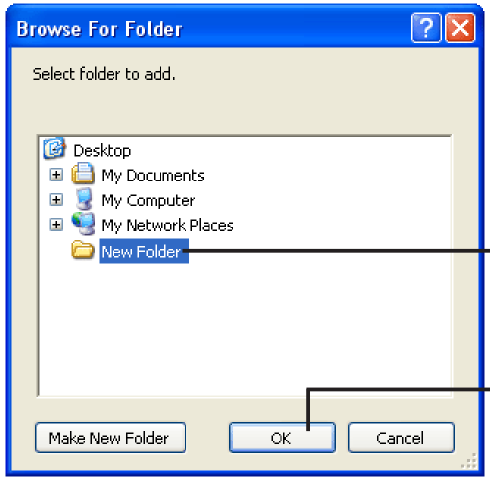
3. Select the folder to add.

Select the folder to add in the [Edit Browser Folder] dialog box from the list shown in the [Browse Folder] dialog box.

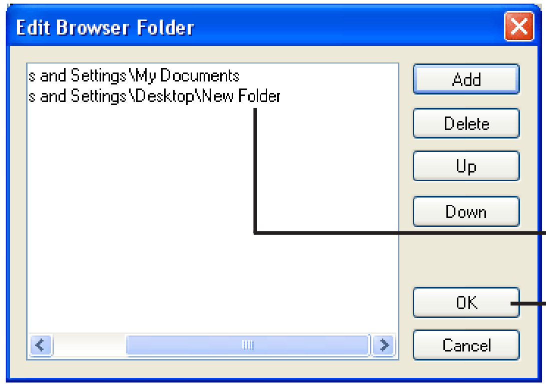

Browse For Folder
Select folder to add.
Desktop
My Documents
My Computer
My Network Places
New Folder
Make New Folder
OK
Cancel

Select the folder to add.

Click [OK] to return to the [Edit Browser Folder] dialog box.

4. Completion

When the screen returns to the [Edit Browser Folder] dialog box, the selected folder is shown there.


Edit Browser Folder
Add
Delete
Up
Down
OK
Cancel

s and Settings\My Documents
s and Settings\Desktop\New Folder

Selected folder is added.

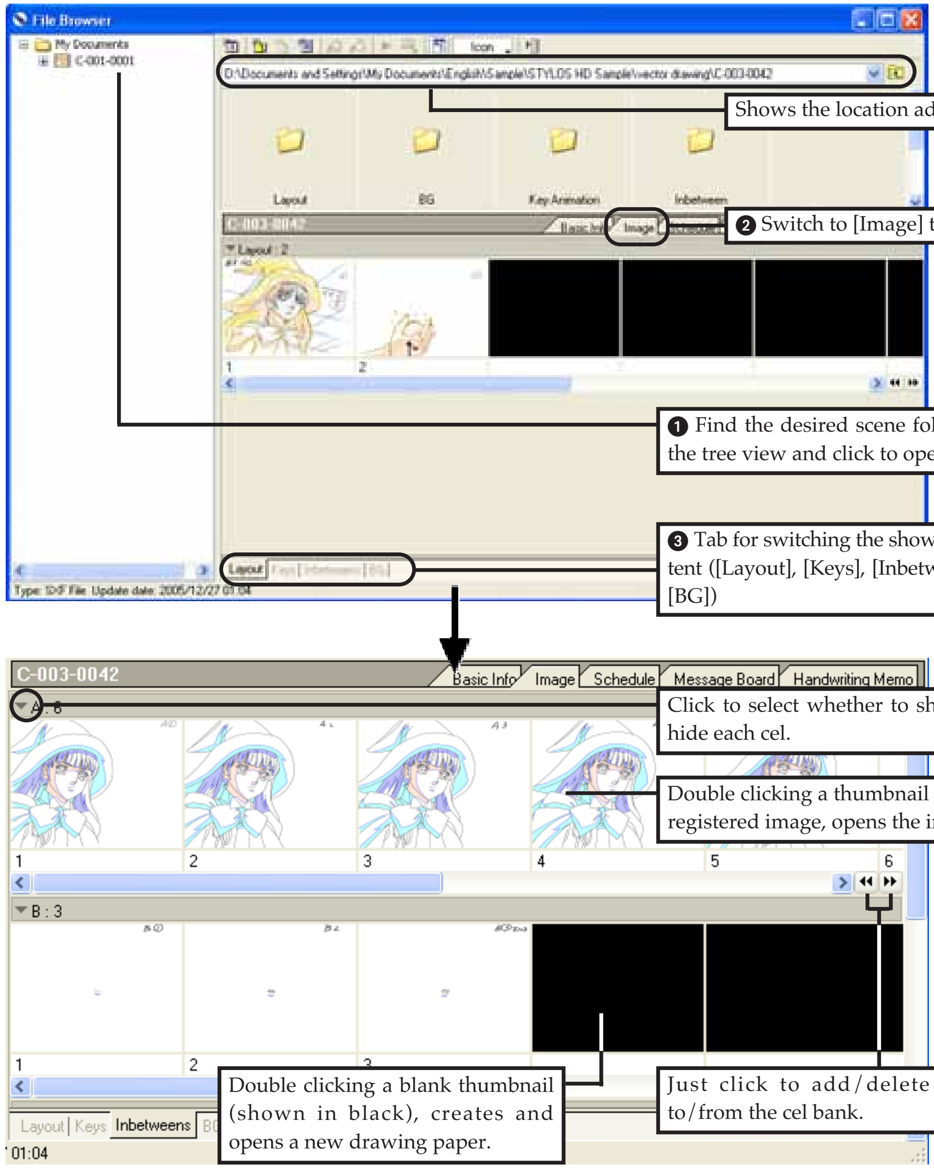
Click [OK] to finish with the settings.

Tips

Another way to open the [Edit Browser Folder] dialog box is to click [Show Menu] in the [File Browser] and select [Edit Browser Folder].

Browsing images (Cel Bank)

To view the image of drawings of the different processes in the [Cel Bank], open the desired scene folder and switch to the [Image] tab.


File Browser
My Documents
C-001-0001
Icon
Layout
BG
Key Animation
Inbetween
C-003-0042
Basic Info
Image
Layout : 2
Layout
Keys
Inbetweens
BG
Type: TDF File Update date: 2005/12/27
C-003-0042
Basic Info
Image
Schedule
Message Board
Handwriting Memo
A : 6
B : 3
Layout
Keys
Inbetweens
01:04

Shows the location address.

❷ Switch to [Image] tab.

❶ Find the desired scene folder in the tree view and click to open.

❸ Tab for switching the shown content ([Layout], [Keys], [Inbetweens], [BG])

Click to select whether to show or hide each cel.

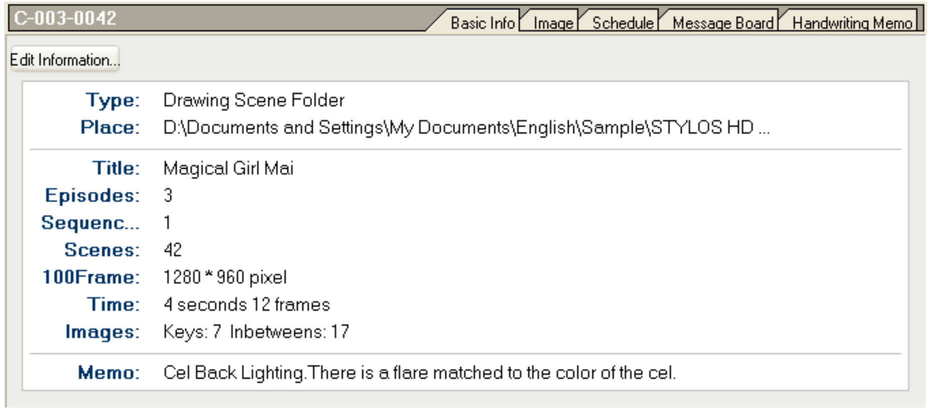
Double clicking a thumbnail with a registered image, opens the image.

Double clicking a blank thumbnail (shown in black), creates and opens a new drawing paper.

Just click to add/delete a cel to/from the cel bank.

Browsing the basic information

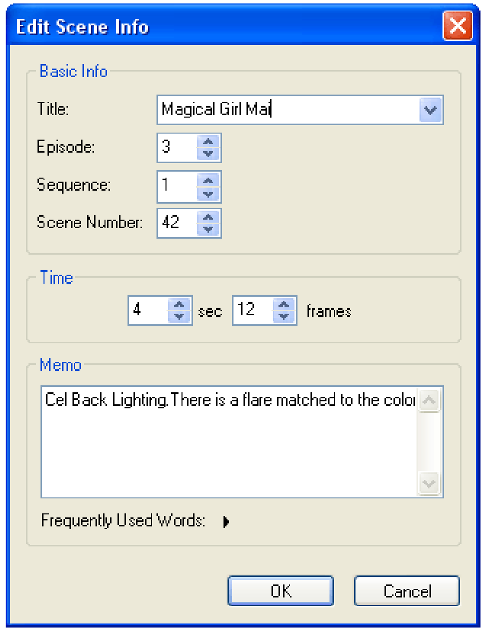
To view the basic information (the information traditionally written on the cover of the conventional scene folder), select the [Basic Info] tab in the [File Browser] Info View area.



Type: Drawing Scene Folder
Place: D:\Documents and Settings\My Documents\English\Sample\STYLOS HD ...
Title: Magical Girl Mai
Episodes: 3
Sequenc... 1
Scenes: 42
100Frame: 1280 * 960 pixel
Time: 4 seconds 12 frames
Images: Keys: 7 Inbetweens: 17
Memo: Cel Back Lighting.There is a flare matched to the color of the cel.

[Edit Information...] button

This button allows you to open [Edit Scene Info] dialog box and edit the [Title], [Episode], [Sequence], [Scene Number], [Time], and/or [Memo].

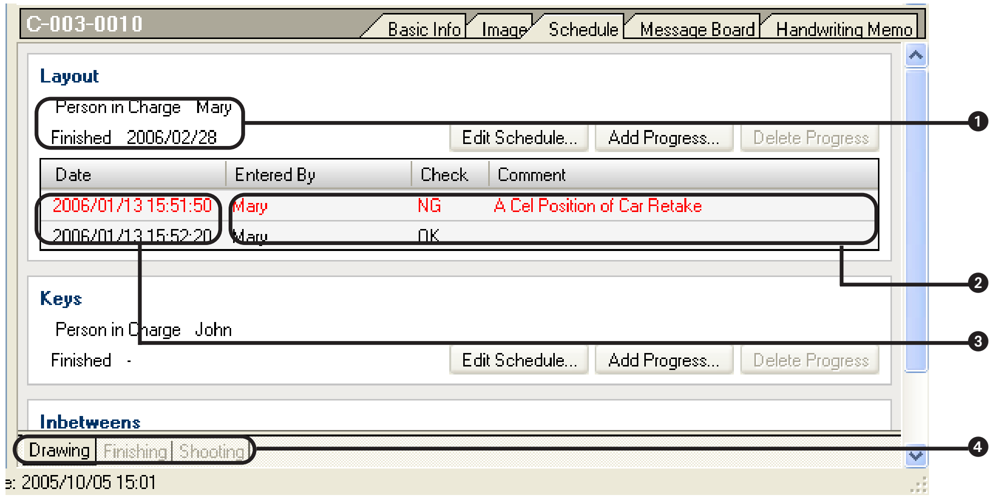


Title: Magical Girl Mai
Episode: 3
Sequence: 1
Scene Number: 42
4 sec 12 frames
Cel Back Lighting.There is a flare matched to the color

- **[Type]**
  Shows the folder type.
- **[Location]**
  Shows the scene folder location.
- **[Title]**
  Shows the loaded title.
- **[Episodes]**
  Shows the loaded number of episodes.
- **[Sequence]**
  Shows the loaded sequence number.
- **[Scene]**
  Shows the loaded scene number.
- **[100Frame]**
  Shows the 100Frame size.
- **[Time]**
  Shows the scene duration in seconds + number of frames.
- **[Images]**
  Shows the number of keys and inbetweens.
- **[Memo]**
  Shows the memos written at the time of the scene folder creation.

Browsing the schedule

The schedule progress information such as the person in charge, the finished date, etc. can be registered from the [File Browser] Info View area using the [Schedule] tab.



C-003-0010

Layout

Person in Charge Mary

Finished 2006/02/28

Date	Entered By	Check	Comment
2006/01/13 15:51:50	Mary	NG	A Cel Position of Car Retake
2006/01/13 15:52:20	Mary	OK	

Keys

Person in Charge John

Finished -

Inbetweens

e: 2005/10/05 15:01

❶ **Schedule Info**
Shows the name of the person in charge and the finished date of each process.

❷ **Progress Info**
Shows the progress status, check result and comments, and the name of the person that made the entry.

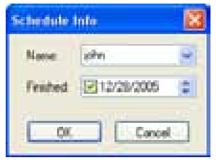
❸ **Progress entry date**
Shows the date and time the progress status was checked and comments entered.

❹ **Process tab**
Switches the process for which you want to edit or view the information.

- **[Drawing] tab**
  Shows the schedule for the layout, key, and inbetween drawing processes.
- **[Painting] tab**
  Shows the schedule for the color styling, painting, and effects processes.
- **[Shooting] tab**
  Shows the schedule for BG, materials check, and shooting processes.

[Edit Schedule...] button

Clicking this button opens the [Schedule Info] dialog box that allows you to enter the name of the person in charge and the finished date.



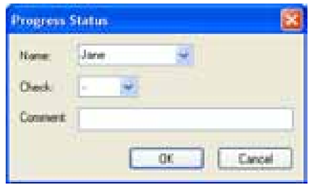
Name: john

Finished: ☑ 12/20/2005

- **[Name]**
  A previously entered name can be selected from a list that is shown when you click the button at the right.
  This list includes the names entered in the [Progress Status] dialog box [Name] field.
- **[Finished]**
  To enter a date, select the check box.
  To change the shown date, click the digits you want to change.
- **[OK] button**
  Confirms the settings and closes the dialog box.
- **[Cancel] button**
  Cancels the settings and closes the dialog box.

[Add Progress...] button

Clicking this button opens the [Progress Status] dialog box that allows you to enter the name of the person in charge of the checking, the check result, and comments.



Name: Jane

Check: -

Comment:

- **[Name]**
  A previously entered name can be selected from a list that is shown when you click the button at the right.
  This list includes the names entered in the [Schedule Info] dialog box [Name] field.
- **[Check]**
  Select an option from among [-], [OK], and [NG].
  Selecting [NG] shows the corresponding progress information in red.
- **[Comment]**
  Enter a message using text as required.
- **[OK] button**
  Confirms the settings and closes the dialog box.
- **[Cancel] button**
  Cancels the settings and closes the dialog box.

[Delete Progress] button

To delete an unnecessary progress information from the schedule, click the progress information you want to delete to select, then click [Delete Progress].

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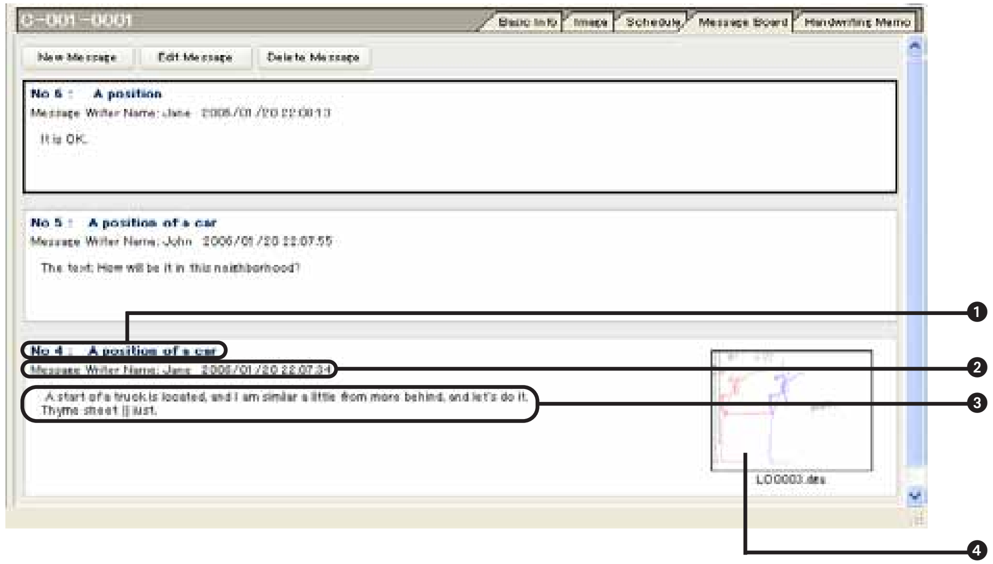
Browsing the Message Board

Messages related to the schedule can be entered from the [File Browser] Info View area using the [Message Board] tab.



No 6 : A position
Message Writer Name: Jane 2006/01/20 22:00:13
It is OK.

No 5 : A position of a car
Message Writer Name: John 2006/01/20 22:07:55
The text: How will be it in this neighborhood?

No 4 : A position of a car
Message Writer Name: Jane 2006/01/20 22:07:34
A start of a truck is located, and I am similar a little from more behind, and let's do it. Thyme sheet || just.

❶ **Subject**
Shows the message number and the subject.

❷ **Name**
Shows the name of the person that entered the message and the date and time the message was entered.

❸ **Message**
Shows the content.

❹ **Link file**
Link to an image file. Click the thumbnail to open the image.

[New Message] button

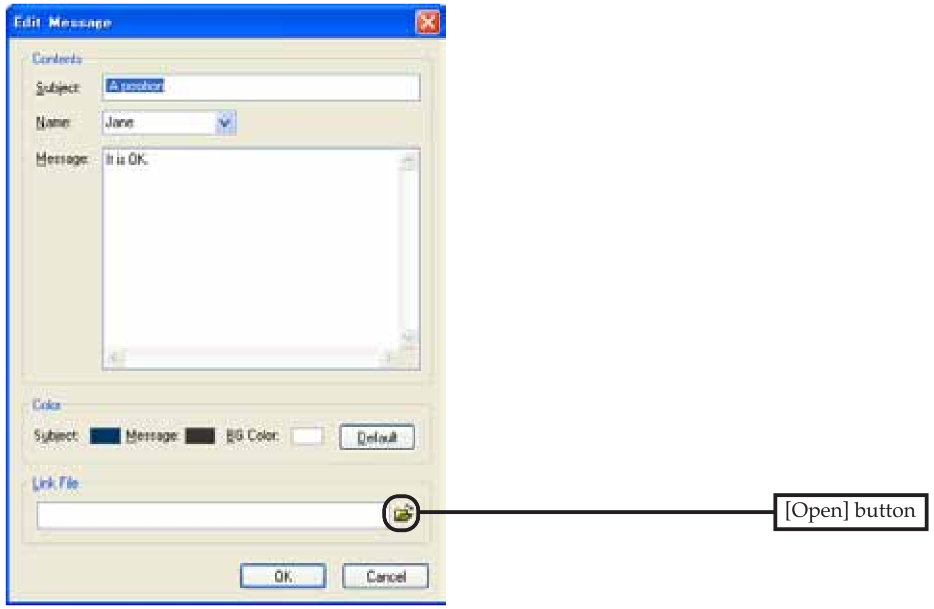
Opens the [Edit Message] dialog box that allows you to enter a new message.

[Edit Message] button

Click the message to edit to select. Then click the [Edit Message] button to open the [Edit Message] dialog box that allows you to change the message content.

[Delete Message] button

Select the message you want to delete and click [Delete Message]. A confirmation dialog box appears. Click [OK] to confirm the deletion.

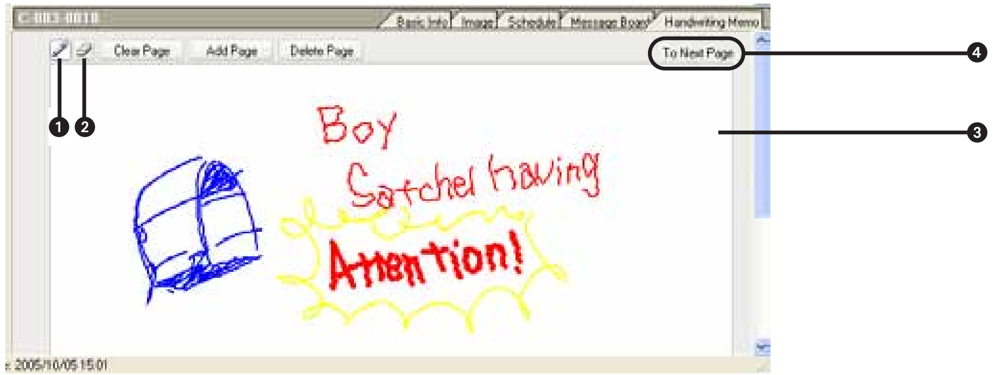


Subject: A position
Name: Jane
Message: It is OK.
Subject: 🟦 Message: ⬛ BG Color: ⬜

- **[Contents]**
  Comprises the [Subject], [Name], and [Message] fields. You will not be able to register the message if any of the fields is left blank.
  The [Name] list of this dialog box is linked to the [Name] lists of persons in charge of a process or progress check under the [Schedule] tab.
- **[Color]**
  Click the [Subject], [Message], and/or [BG] button to show the Color Palette and select a color for the corresponding field.
  Click [Default] to return to the default settings.
- **[Link File]**
  To attach an image file to the message, click the [Open] button and select the image file.
- **[OK] button**
  Confirms the settings and closes the dialog box.
- **[Cancel] button**
  Cancels the settings and closes the dialog box.

Browsing the handwriting memo

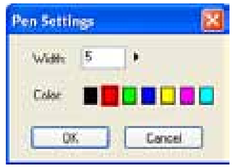
Texts and/or drawings can be entered in the handwriting memo pages using the graphics tablet pen or the mouse.


Basic Info
Image
Schedule
Message Board
Handwriting Memo
Clear Page
Add Page
Delete Page
To Next Page
Boy
Satchel having
Attention!
2005/10/05 15:01
1
2
3
4

❶ **[Pen] tool**

The [Pen] tool allows you to draw lines on a handwriting memo page.

Double click the [Pen] tool icon. The [Pen Settings] dialog box that allows you to select the pen size and the color appears.


Pen Settings
OK
Cancel

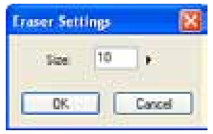
Width: 5

Color:

❷ **[Eraser] tool**

The [Eraser] tool allows you to erase a drawn line.

Double click the [Eraser] tool icon. The [Eraser Settings] dialog box that allows you to select the eraser size in the 1 - 20 range appears.


Eraser Settings
OK
Cancel

Size: 10

❸ **Page**

Page is where your handwritten memo will be entered.

❹ **Page switch**

This button allows you to switch the currently shown page to the next, the previous, or the first.

[Clear Page] button

Clears the content of the currently shown page.

[Add Page] button

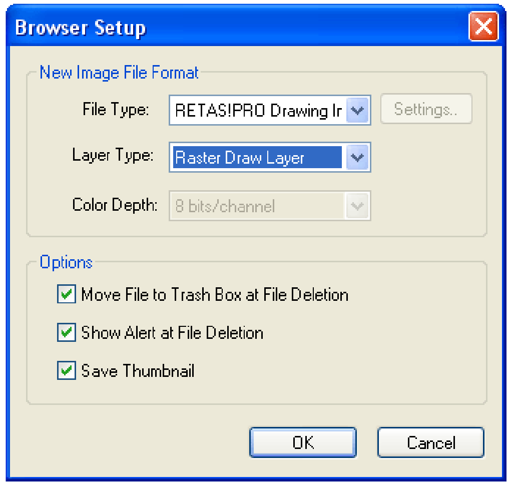
Adds a new page.

[Delete Page] button

Deletes the currently shown page.

Browser Setup dialog box

To open the [Browser Setup] dialog box, click [Show Menu] in the [File Browser] and select [Settings...].


Browser Setup
New Image File Format
Settings...
Options
OK
Cancel

File Type: RETAS!PRO Drawing Ir

Layer Type: Raster Draw Layer

Color Depth: 8 bits/channel

☑ Move File to Trash Box at File Deletion

☑ Show Alert at File Deletion

☑ Save Thumbnail

[New Image File Format]

Allows you to select the image file format.

- **[Settings...]**
  Depending on the image file format selected in [File Type], you may configure optional settings such as the compression method.
- **[Layer Type]**
  Allows you to select the layer.
- **[Color Depth]**
  Depending on the image file format selected in [File Type], you may configure the color depth settings.

[Options]

The following items are items enabled by selecting the corresponding check box.

- **[Move File to Trash Box at File Deletion]**
- **[Show Alert at File Deletion]**
- **[Save Thumbnail]**

- **[OK] button**
  Confirms the settings and closes the dialog box.
- **[Cancel] button**
  Cancels the settings and closes the dialog box.

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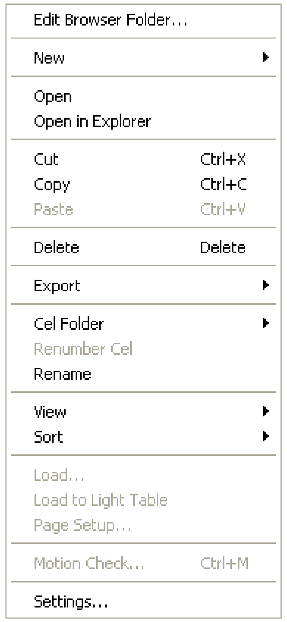
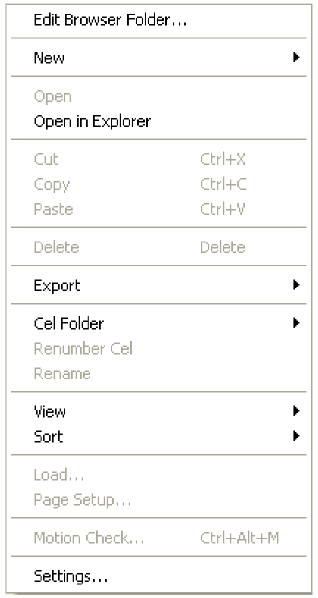
File Browser menu

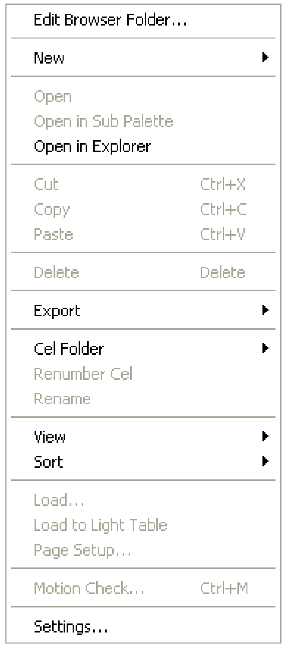
The following menu is shown when you click the [Show Menu] button.


Edit Browser Folder…
New
Open
Open in Explorer
Cut Ctrl+X
Copy Ctrl+C
Paste Ctrl+V
Delete Delete
Export
Cel Folder
Renumber Cel
Rename
View
Sort
Load…
Load to Light Table
Page Setup…
Motion Check… Ctrl+M
Settings…

(STYLOS HD/ Windows version)


Edit Browser Folder…
New
Open
Open in Explorer
Cut Ctrl+X
Copy Ctrl+C
Paste Ctrl+V
Delete Delete
Export
Cel Folder
Renumber Cel
Rename
View
Sort
Load…
Page Setup…
Motion Check… Ctrl+Alt+M
Settings…

(TraceMan HD/ Windows version)


Edit Browser Folder…
New
Open
Open in Sub Palette
Open in Explorer
Cut Ctrl+X
Copy Ctrl+C
Paste Ctrl+V
Delete Delete
Export
Cel Folder
Renumber Cel
Rename
View
Sort
Load…
Load to Light Table
Page Setup…
Motion Check… Ctrl+M
Settings…

(PaintMan HD/ Windows version)

- **[Edit Browser Folder...]**
  Clicking this item opens the [Edit Browser Folder] dialog box which allows you to register the scene folder location to browse from the [File Browser].
- **[New]**
  Clicking this item shows the respective dialog box for creating a new [Cel], [Color Chart] (only PaintMan HD), [Scene Folder], [X-sheet], or [Folder].
- **[Open]**
  Opens the selected folder or file.
- **[Open in Sub Palette] (only PaintMan HD)**
  Opens the selected file in a sub palette.
- **[Open in Explorer/Finder]**
  Opens the selected folder or file in the Explorer (Windows version) or Finder (Macintosh version).

- **[Cut]**
  Cuts an image selected in the [File View] [Cel Bank].
- **[Copy]**
  Copies an image selected in the [File View] [Cel Bank].
- **[Paste]**
  Pastes an image selected in the [File View] [Cel Bank].
- **[Delete]**
  Deletes a folder of file selected in the [File View].
- **[Export]**
  Converts the selected scene folder or image into a scene folder or image of a different format.
  Available options are: [Painting] (only STYLOS HD), [Raster...], and [SWF...].
- **[Cel Folder]**
  Allows you to [Add], [Delete], or [Rename] cel folders.
- **[Renumber Cel]**
  Allows you to change the number of a cel selected in the Cel Bank.
- **[Rename]**
  Allows you to change the name of a folder selected in the Cel Bank.
- **[View]**
  Allows you to select whether to show or hide the [Tree View], or to select the way to show the File View from among [Icon], [Detailed], and [List].
- **[Sort]**
  Allows you to sort the folders in the [File View] according to [Name], [Size], [Type], or [Date Modified].
- **[Load...]**
  Allows you to load an image file to a blank [Cel Bank] column.
- **[Load to Light Table] (Only STYLOS HD/PaintMan HD)**
  Allows you to load a layout, key, inbetween, and/or BG to the light table from the [Cel Bank]. (Make sure you have switched the light table set to a set without any image in it by using the [Switch Light Table Set] button on the [Light Table Palette] in advance.)
- **[Page Setup...]**
  Selecting this item opens the [Page Setup] dialog box which allows you to configure the [Frame Size], [Frame Settings], and/or [Position] for the drawing paper. (You need to have the image selected in the Cel Bank)
- **[Motion Check...]**
  Selecting this item opens the [Motion Check Settings] dialog box. Clicking [OK] in the dialog box after configuring the necessary items starts the motion check.
- **[Settings...]**
  Selecting this item opens the [Browser Setup] dialog box which allows you to specify the image format or layer type at the creation of a new image file or the handling at file deletion.

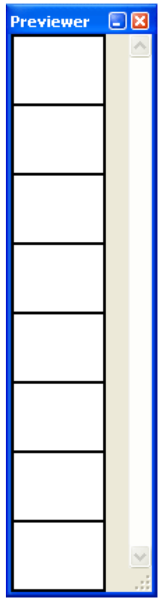
File Previewer

Basic operations using File Previewer

The file previewer allows you to check sequentially numbered images within the same layer using thumbnails, or switch the image to edit.

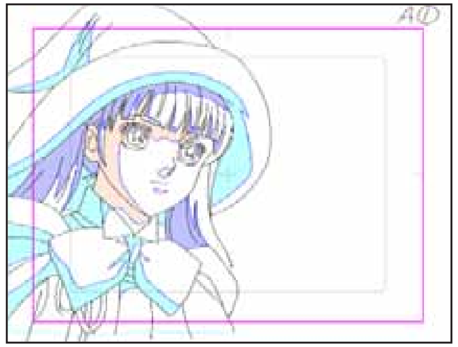
1. Opening the File Previewer

To open the [File Previewer], select [File Previewer] from the [Window] menu.



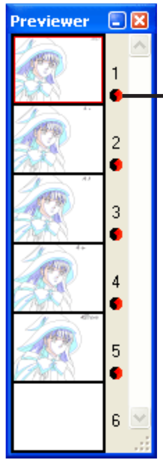
2. Opening the Cel window

Double click any thumbnail shown in the [Cel Bank] at the lower part of the [File Browser]. The [Cel] window appears.



3. Showing a sequentially numbered image

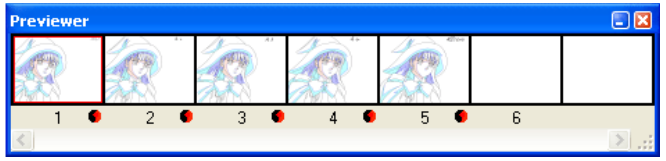
Sequentially numbered images for the same cel are shown on the [File Previewer] simultaneously. Clicking an image in the [File Previewer] opens a [Cel] window with the image. The image can be edited there.



Images with [Shadow Markup] are indicated with a mark.

4. Switching the File Previewer orientation

The File Previewer is shown vertically by default. To show it horizontally, take the lower right corner of the File Previewer with the mouse pointer and drag.



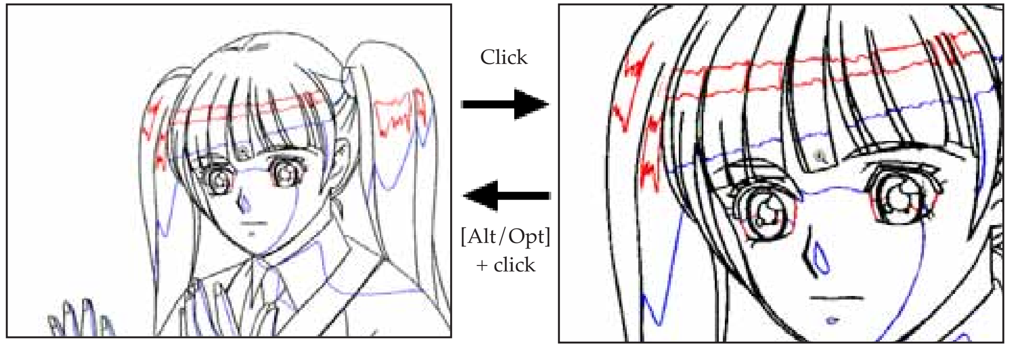
Chapter 5

Screen View

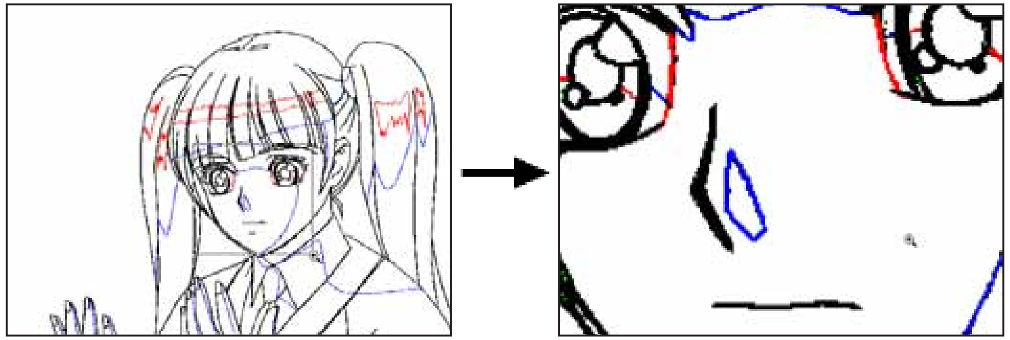
Screen View

Zooming In/Zooming Out: Zoom tool

Clicking on a part of the [Cel] window you want to zoom in with the tool selected amplifies the view. If clicked while you have the [Alt/Opt] key held down, reduces the view.

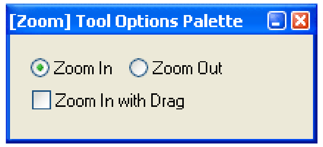


If [Zoom In with Drag] is selected in the [Zoom] tool options palette, you can enlarge by just dragging with the [Zoom] tool the part you want to zoom in for selecting it, then releasing the mouse pointer.



[Zoom] tool options palette

Working with the [Zoom] tool options palette open allows you to toggle the click behavior between [Zoom In] and [Zoom Out] as needed.



[Zoom] Tool Options Palette

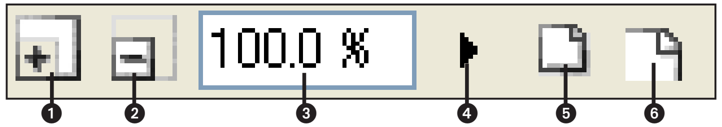
● Zoom In ○ Zoom Out

☐ Zoom In with Drag

Zooming In/Zooming Out: Tool bar

The [Tool bar] on the upper part of the window allows you to adjust the scale for the screen view. The [Tool bar] can be shown or hidden by selecting/deselecting [Show Tool Bar] under the [View] menu.

[Zoom In], [Zoom Out], [Fit on Screen], [Actual Pixels] are also available through shortcuts using the [Ctrl/Cmd] key as well as from [Scale] under the [View] menu.



① [Zoom In] ([View] → [Scale] → [Zoom In] / [Ctrl/Cmd] + [+])
The screen view is amplified at every mouse click.

② [Zoom Out] ([View] → [Scale] → [Zoom Out] / [Ctrl/Cmd] + [-])
The screen view is reduced at every mouse click.

③ Scale (Input box)
Enter a numeric scale value for the screen view from the keyboard.

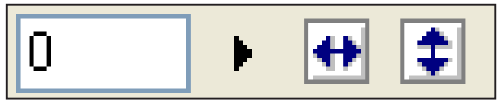
④ [Scale] (Slider)
Clicking the icon shows a slider. Adjust the scale by dragging up/down the slider. Adjustment is also possible by clicking the slider arrow at the right.

⑤ [Fit on Screen] ([View] → [Scale] → [Fit on Screen] / [Ctrl/Cmd] + [0])
The scale is adjusted so that the whole screen view is shown in the [Cel] window.

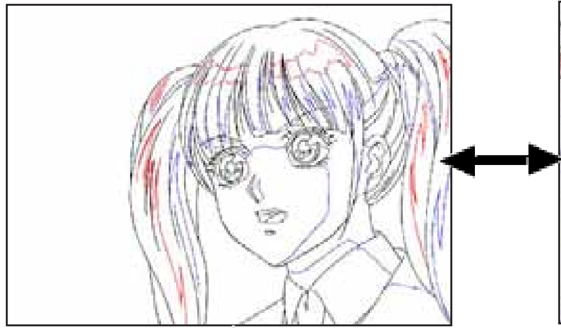
⑥ [Actual Pixels] ([View] → [Scale] → [Actual Pixels] / [Ctrl/Cmd] + [Shift] +[0])
In this screen view, the image pixels are matched to screen pixels 1:1.

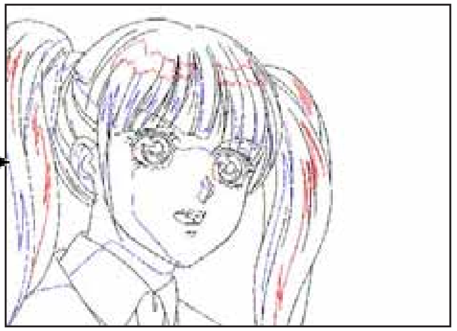
Reversing the screen view: Tool bar

The [Tool bar] on the upper part of the window allows you to flip the screen view horizontally or vertically. The [Tool bar] can be shown or hidden by selecting/deselecting [Show Tool Bar] under the [View] menu.
The same operation is also possible with [Flip Horizontal] and [Flip Vertical] under the [View] menu.

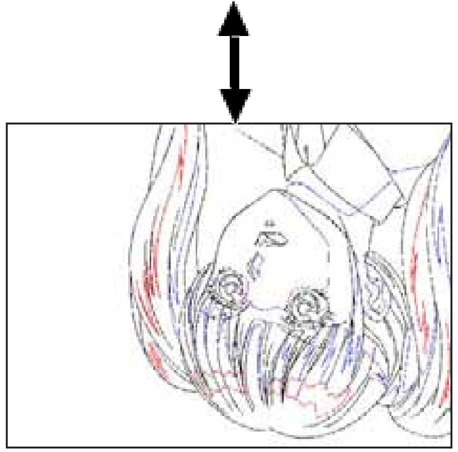


[Flip Horizontal] [Flip Vertical]





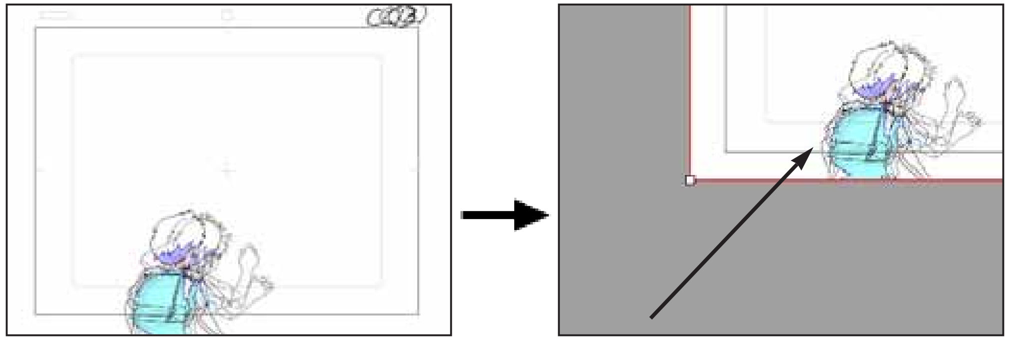
Example of [Flip Horizontal]



Example of [Flip Vertical]

Moving a screen view: Hand tool H

Dragging over the [Cel] window with the tool selected moves the screen view.

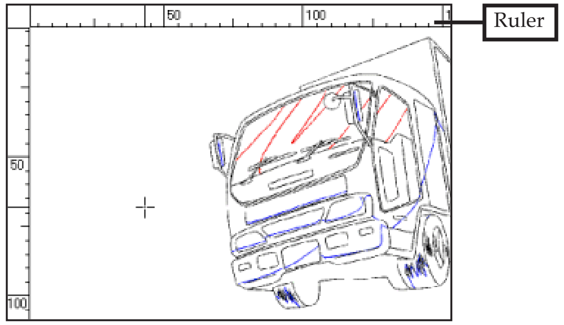


Tips

You can use the [Hand] tool temporarily even when you have another tool selected by holding down the [Ctrl/Cmd] key.

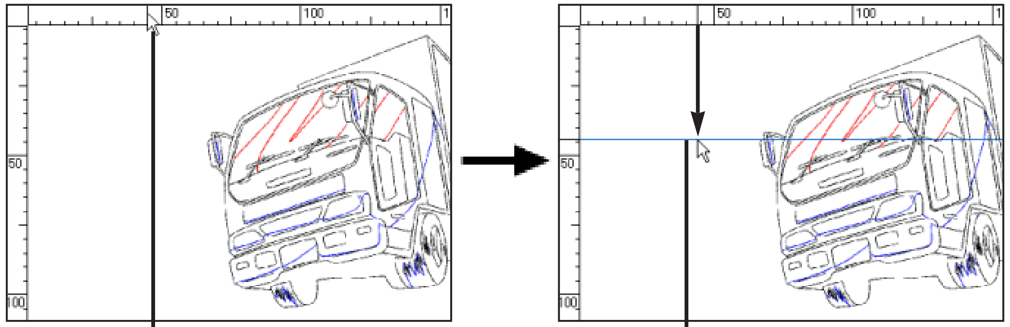
Showing the ruler [View] → [Show Ruler]

Clicking the [Show Ruler] icon on the [Tool] bar shows the ruler in the [Cel] window.



Showing the guide line [View] → [Show Guide]

Clicking the [Show Guide] icon on the [Tool] bar shows the guide lines in the [Cel] window. To generate a [Guide] line, put the mouse pointer on the ruler and drag.



❶ Put the mouse pointer on the ruler.

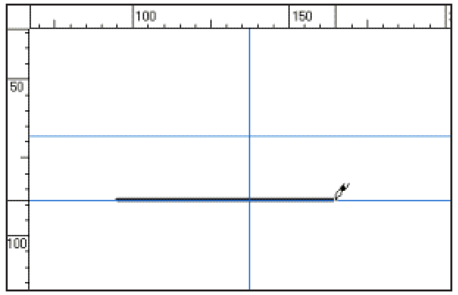
❷ Drag to generate the [Guide] line.

Tips

To delete a guide line, drag it outside the [Cel] window.

Snap to Guide [Edit] → [Snap] → [Guide]

Clicking the [Snap to Guide] icon on the [Tool] bar allows you to draw a straight line snapped to the [Guide] line.

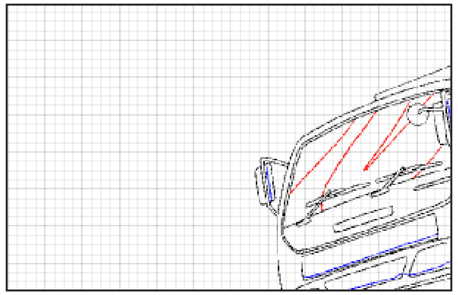


Object Selection Tool Y

To move a [Guide] line, select the line with the [Object Selection] tool on the [Tool Palette] and drag.

Show Grid [View] → [Show Grid]

Clicking the [Show Grid] icon on the [Tool] bar shows the [Cel] window with grid lines.



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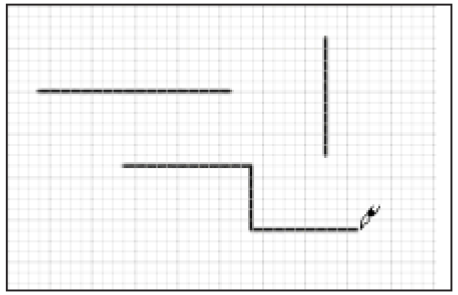
Snap to Grid

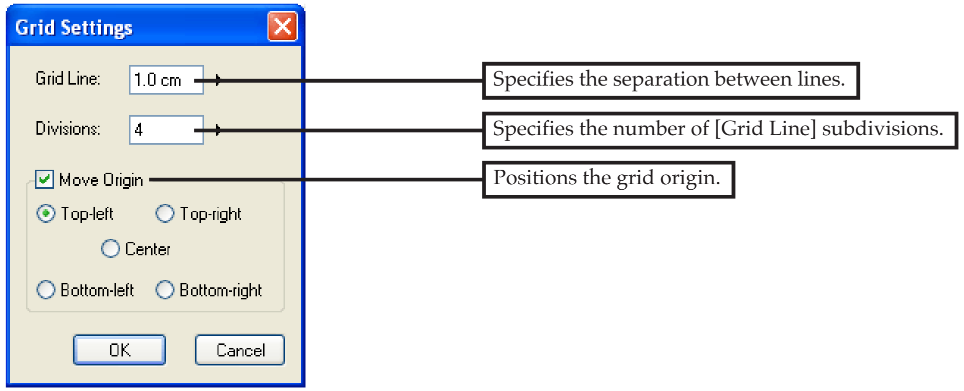
[Edit] → [Snap] → [Grid]

Clicking the [Snap to Grid] icon on the [Tool] bar allows you to draw straight lines snapped to a shown [Grid] or [Grid Subdivision] line.



[Grid Settings] dialog box

Selecting [Settings] → [Grid...] from the [Edit] menu opens the [Grid Settings] dialog box that allows you to configure the detailed settings.


Grid Settings

Grid Line: 1.0 cm — Specifies the separation between lines.

Divisions: 4 — Specifies the number of [Grid Line] subdivisions.

☑ Move Origin — Positions the grid origin.

● Top-left ○ Top-right

○ Center

○ Bottom-left ○ Bottom-right

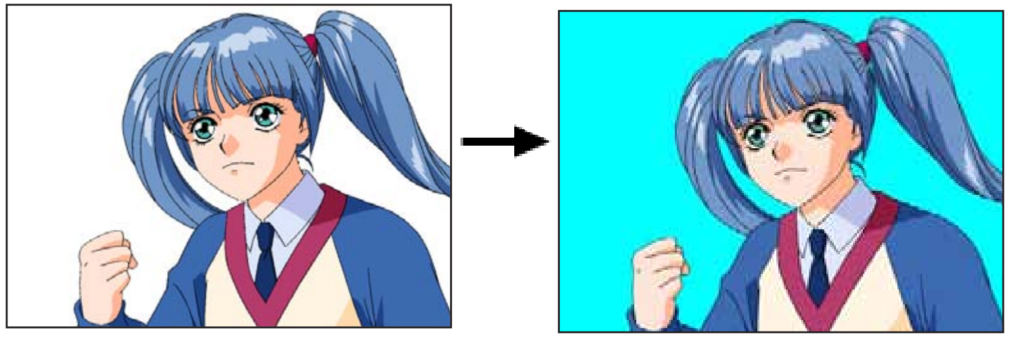
Tips

[Grid Lines] are not always shown as specified because depending on the scale, they are thinned out.
You can change the [Grid] line settings by selecting [Settings] → [Preferences...] → [Color] from the [Edit] menu.

Show Transparent Area

[View] → [Show Transparent Area]

Clicking the [Show Transparent Area] icon on the tool bar and turning on the option shows the transparent parts in light blue.



Tips

You can change the color used for showing the transparent parts by configuring the [Color] box under [Settings] → [Preferences...] → [Color] → [Transparent] of the [View] menu.

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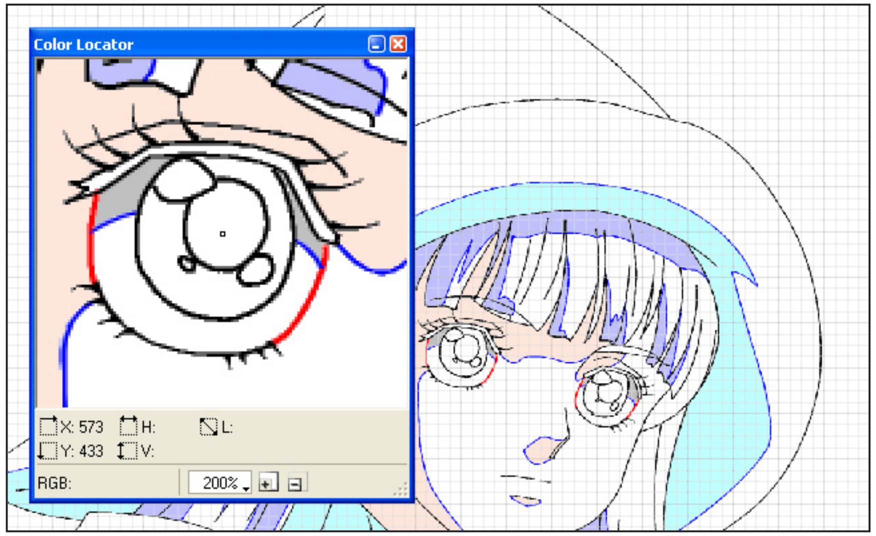
Zooming in a selection: Color Locator F8 [Window] → [Color Locator]

Color locator is a palette that shows an amplified image of an area near the mouse pointer with detailed information in real time. To move the palette, drag the title bar. To resize, drag any of its sides.



X: 573 H: L:
Y: 433 V:
RGB: 200%

Indicators

In the lower left of the palette, indicators show the mouse pointer coordinates in pixels.

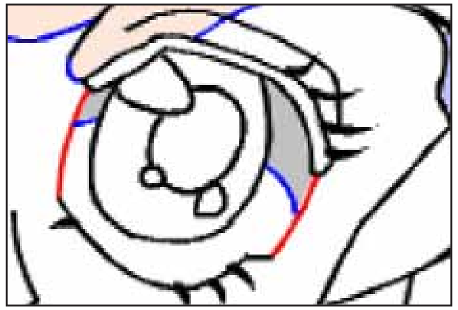
- **[X]**
  Shows the mouse pointer X coordinates relative to the upper left corner of the image.
- **[Y]**
  Shows the mouse pointer Y coordinates relative to the upper left corner of the image.
- **[H]**
  Shows the X side length of the selection.
- **[V]**
  Shows the Y side length of the selection.
- **[L]**
  Shows the diagonal length of the selection.
- **[RGB]**
  Shows the color at the mouse pointer in R (red), G (green), and B (blue), with each component expressed in the 0 - 255 range.
- **[View Scale Switch]**
  Allows you to change the view scale.
- **[Zoom In]**
  Allows you to amplify at every mouse click.
- **[Zoom Out]**
  Allows you to reduce at every mouse click.

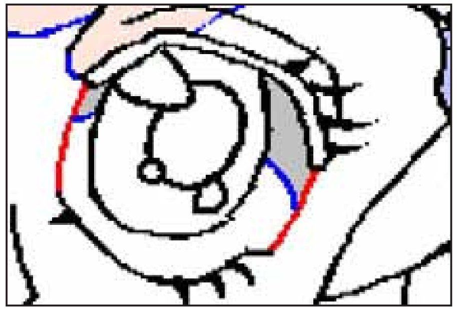
Viewing with vectors

Display mode of vectors can be selected from the [View] menu.

Show Anti-aliasing

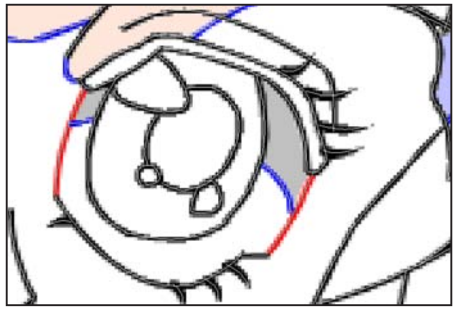
Anti-aliasing is a function that smoothes edges. The function allocates intermediate colors to the jagged edge to show a smooth transition.
Turning off [Show Anti-aliasing] by deselecting its check box shows a jagged edge. However, the scope of this function is limited to the screen view and does not affect the data themselves. Turning off [Show Anti-aliasing] would ease the processor load of your computer.

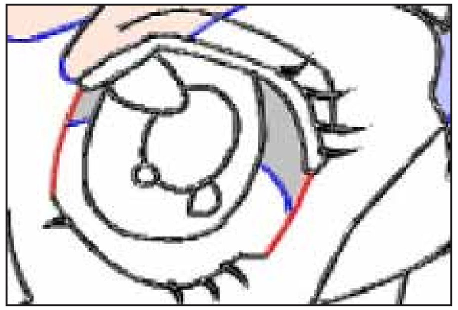

[Show Anti-aliasing]: ON


[Show Anti-aliasing]: OFF

Show Center Line / Show Vector Start & End Points

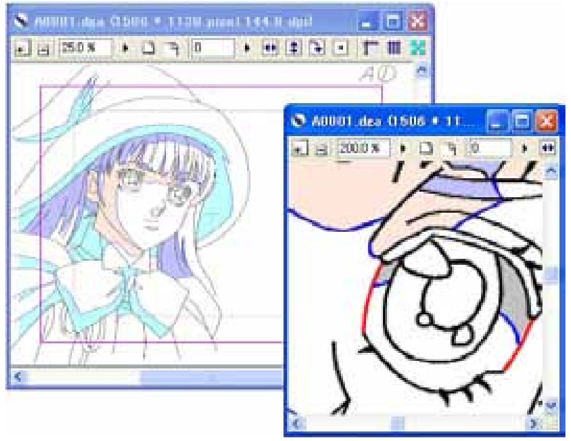
A line in vector drawing is a set of drawing information that includes coordinates of points, line connection points, planes, etc. Turning on [Show Center Line] is useful when it is necessary to be aware of the center of the lines for joining them correctly with the [Join Line] tool, for example. Normally, you may work with this function turned off.
Turning on [Show Vector Start & End Points] shows vectors that do not intersect other lines.


[Show Center Line]: ON


[Show Center Line]: ON
[Show Vector Start & End Points]: ON

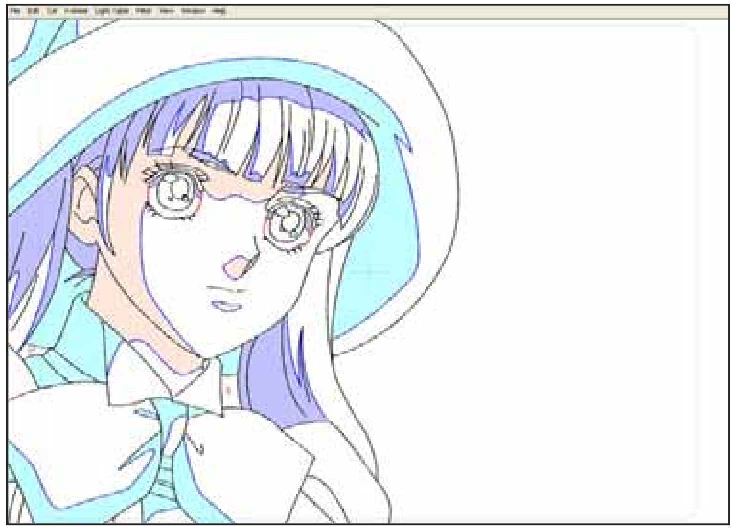
Multi-View [Window] → [Documentation] → [New Cel Window]

- This allows you to open the same image in multiple [Cel] windows.
- This function also allows you have an amplified image along with a "Fit on Screen" image which is convenient for working on a detail while keeping an eye on the overall picture.
- Editing the image in one window affects the image in all others.



Full Screen mode [Window] → [Documentation] → [Full Screen Mode]

- This allows you to hide all other windows and use the entire screen space for the [Cel] window which is convenient when you need large a drawing area, for example.



Arrange Palettes [Window] → [Arrange Palettes]

This function returns the palettes moved during the work to their home position.

[Arrange to Default Position]

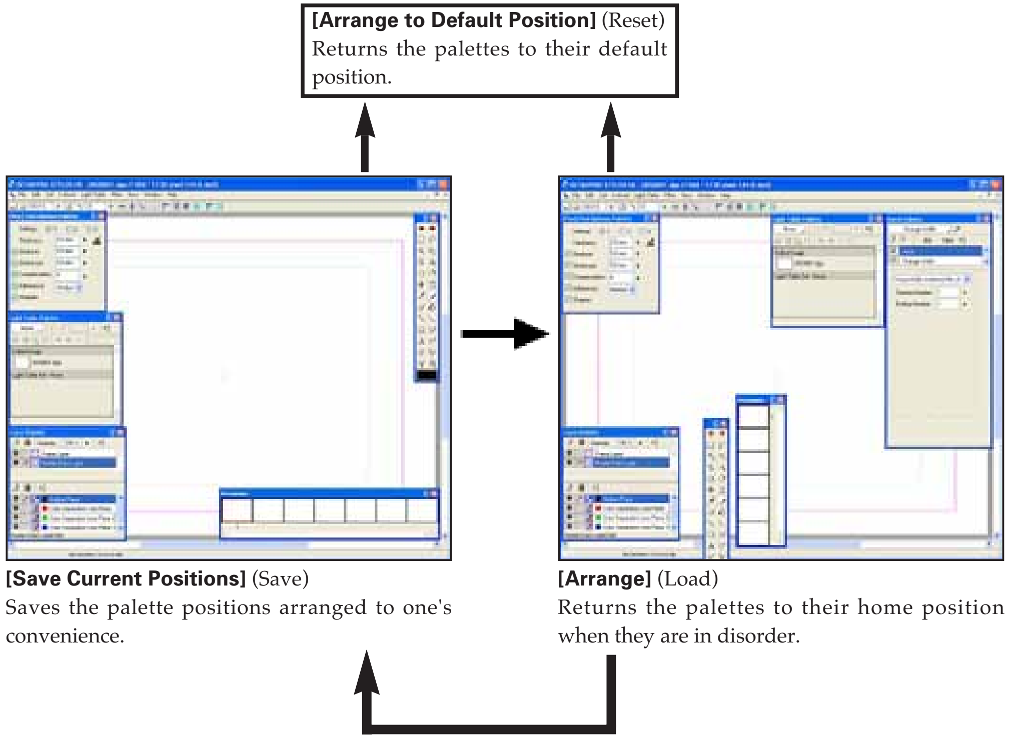
Returns the palettes to their default position.

[Save Current Positions]

Saves the current palette positions.

[Arrange]

Returns the palettes to the positions saved with [Save Current Position].



[Arrange to Default Position] (Reset)
Returns the palettes to their default position.

[Save Current Positions] (Save)
Saves the palette positions arranged to one's convenience.

[Arrange] (Load)
Returns the palettes to their home position when they are in disorder.

Tips

Palettes can be shown or hidden all together using the [Enter/Return] key.

RETAS!PRO

Chapter 6

Drawing Paper and Frame

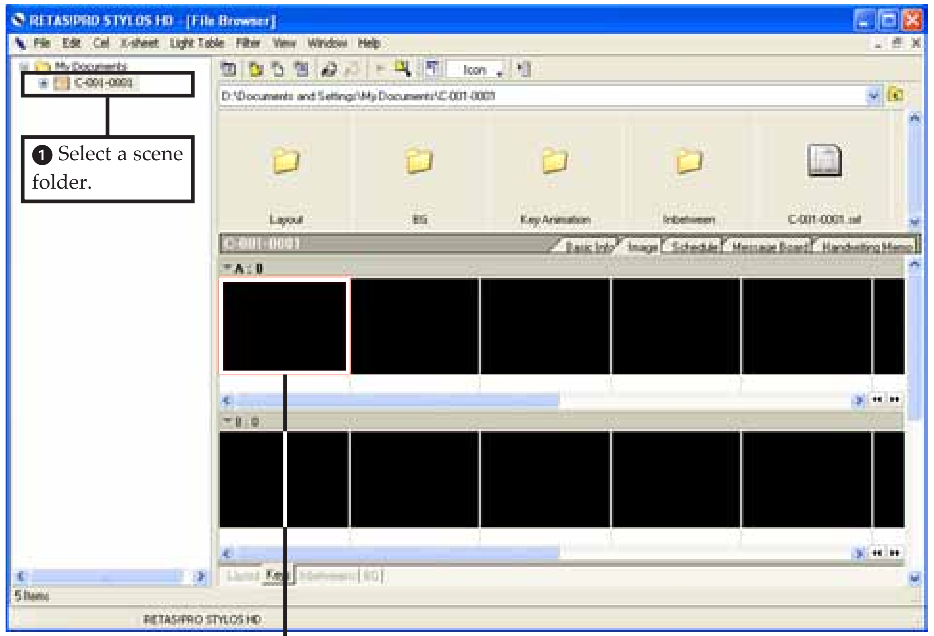
Drawing paper (cel)

Creating a cel the easy way

The procedure for creating a drawing paper (cel) as specified when creating the scene folder is as follows.

1. Open the file browser

Open the [File Browser] from the [Window] menu.

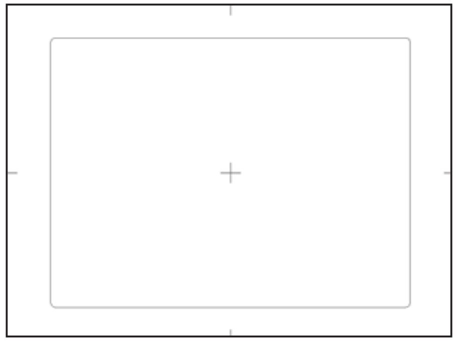

RETAS!PRO STYLOS HD - [File Browser]
File Edit Cel X-sheet Light Table Filter View Window Help
My Documents
C-001-0001
Icon
D:\Documents and Settings\My Documents\C-001-0001
Layout
BG
Key Animation
Inbetween
C-001-0001.sif
C-001-0001
Basic Info
Image
Schedule
Message Board
Handwriting Memo
A : 0
B : 0
Layout
Key
Inbetween
BG
5 Items
RETAS!PRO STYLOS HD

❶ Select a scene folder.

❷ Double click a black cell (a cell without cel) in the [Cel Bank].

2. Open the Cel window.

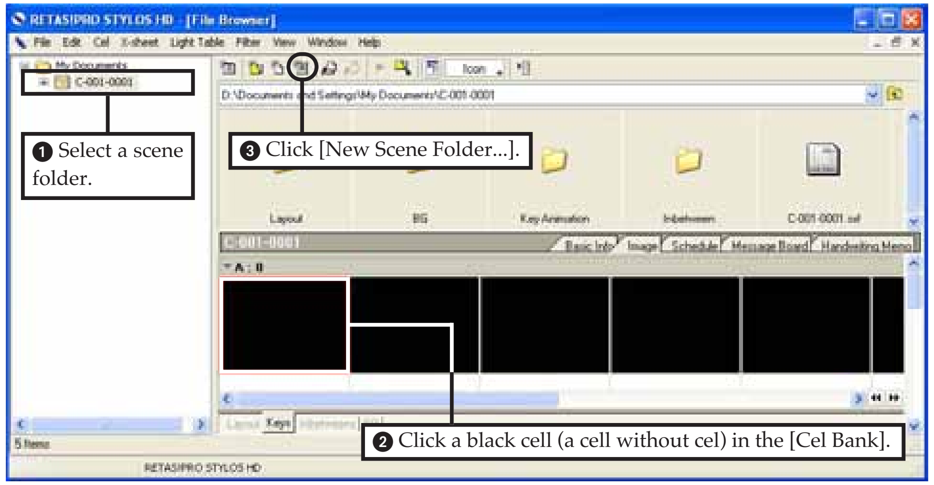
A new drawing paper ([Cel] window) as specified when creating the scene folder appears.



Creating a new cel

1. Open the scene folder.

Open the [File Browser] from the [Window] menu.


RETAS!PRO STYLOS HD - [File Browser]
File Edit Cel X-sheet Light Table Filter View Window Help
My Documents
C-001-0001
D:\Documents and Settings\My Documents\C-001-0001
Layout
BG
Key Animation
Inbetween
C-001-0001.scf
C-001-0001
Basic Info
Image
Schedule
Message Board
Handwriting Memo
A : 0
Layout
Keys
Inbetween
5 Items
RETAS!PRO STYLOS HD

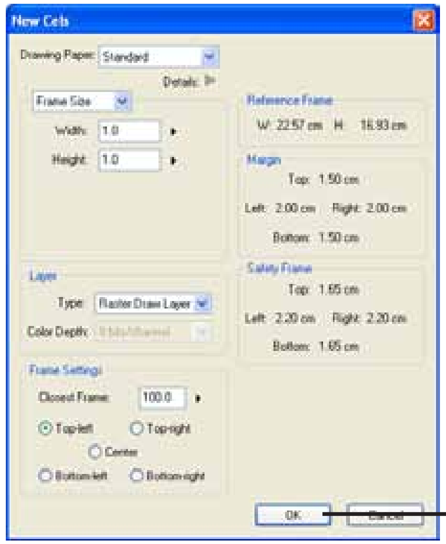
① Select a scene folder.

❸ Click [New Scene Folder...].

❷ Click a black cell (a cell without cel) in the [Cel Bank].

2. Open the New Cels dialog box.

Configure the new drawing paper settings.


New Cels
Details
Reference Frame
Margin
Safety Frame
Layer
Frame Settings
OK
Cancel

Drawing Paper: Standard

Frame Size

Width: 1.0

Height: 1.0

Reference Frame: W: 22.57 cm H: 16.93 cm

Margin: Top: 1.50 cm Left: 2.00 cm Right: 2.00 cm Bottom: 1.50 cm

Safety Frame: Top: 1.65 cm Left: 2.20 cm Right: 2.20 cm Bottom: 1.65 cm

Layer Type: Raster Draw Layer

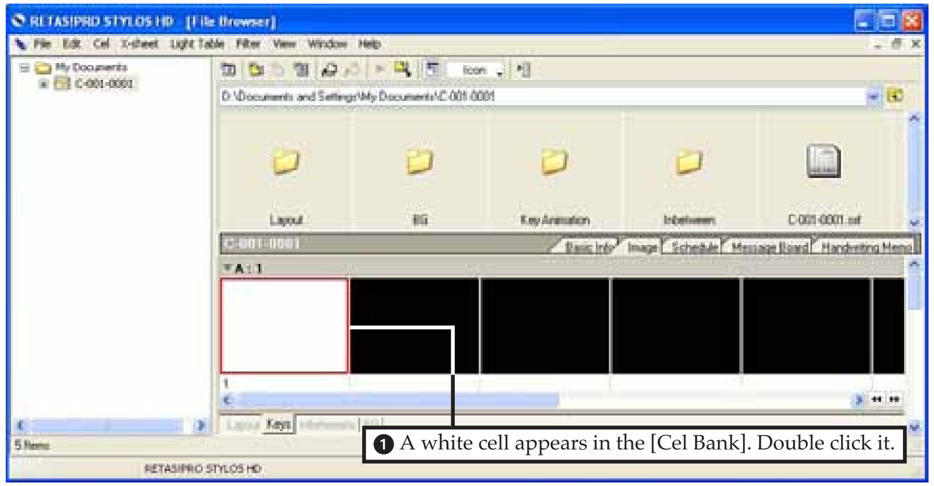
Closed Frame: 100.0

● Top-left ○ Top-right ○ Center ○ Bottom-left ○ Bottom-right

❷ Click [OK] to finish with the settings.

3. Open the scene folder.

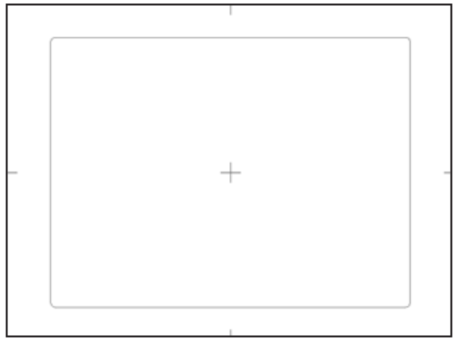
The screen returns to the file browser.


RETAS!PRO STYLOS HD - [File Browser]
File Edit Cel X-sheet Light Table Filter View Window Help
My Documents
C-001-0001
D:\Documents and Settings\My Documents\C-001-0001
Layout
BG
Key Animation
Inbetween
C-001-0001.scf
C-001-0001
Basic Info
Image
Schedule
Message Board
Handwriting Memo
A : 1
Layout
Keys
Inbetween
5 Items
RETAS!PRO STYLOS HD

① A white cell appears in the [Cel Bank]. Double click it.

4. Open the New Cel window.

A new drawing paper ([Cel] window) appears.



Tips

New cels can also be created by selecting [File] → [New] → [Cel]. However, in this case the cel does not have a default save destination scene folder.

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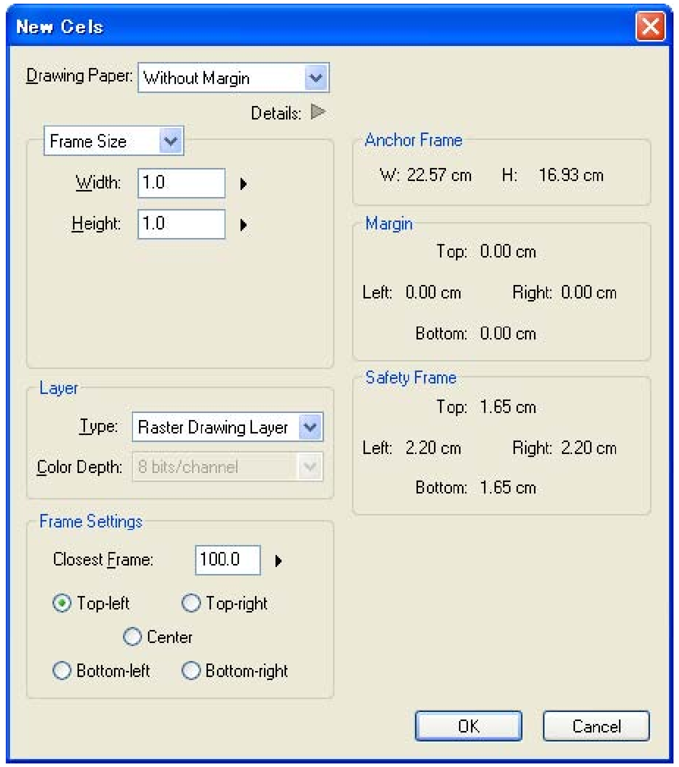
New Cels dialog box



New Cels

Drawing Paper: Without Margin

Details: ▷

Frame Size

Width: 1.0

Height: 1.0

Anchor Frame

W: 22.57 cm H: 16.93 cm

Margin

Top: 0.00 cm

Left: 0.00 cm Right: 0.00 cm

Bottom: 0.00 cm

Layer

Type: Raster Drawing Layer

Color Depth: 8 bits/channel

Safety Frame

Top: 1.65 cm

Left: 2.20 cm Right: 2.20 cm

Bottom: 1.65 cm

Frame Settings

Closest Frame: 100.0

● Top-left ○ Top-right

○ Center

○ Bottom-left ○ Bottom-right

[Drawing Paper]

Shows the scene number that was entered when the scene folder was created, and the currently selected drawing paper size that was specified for the scene folder when the scene folder was created. Also allows you to select the drawing paper from among [Standard], [PencilMan], [STYLOS], and [Without Margin].

- **[Details]**
  Click the triangle to expand the right part of the dialog box and show the detailed information on [Anchor Frame], [Margin], and [Safety Frame] for the currently selected drawing paper.

[Frame Size/Canvas Size]

A pull-down menu that allows you to select either of the following options.

- **[Frame Size]**
  Allows you to specify the canvas size using frame as the unit.
- **[Canvas Size]**
  Allows you to specify the canvas size and resolution numerically.

[Layer]

Allows you to select the type of layer from among [Vector Drawing Layer], [Raster Drawing Layer], and [Raster General Layer].

For [Raster General Layer], you can also select the [Color Depth]: [8 bits/channel] or [16 bits/channel].

[Frame Settings]

- **[Closest Frame]**
  Allows you to specify how close (T. U.) the frame will be with respect to the drawing paper to create. RETAS!PRO adjusts the distance so that the size of the closest (T.U.) frame becomes "100Frame".
- **Frame position**
  Allows you to select the anchor frame position for the [Closest Frame] view from among [Top-left], [Top-right], [Center], [Bottom-left], and [Bottom-right].

- **[OK]**
  Confirms the settings and closes the dialog box.
- **[Cancel]**
  Cancels the settings and closes the dialog box.

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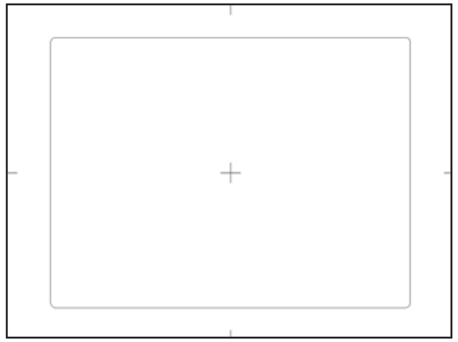
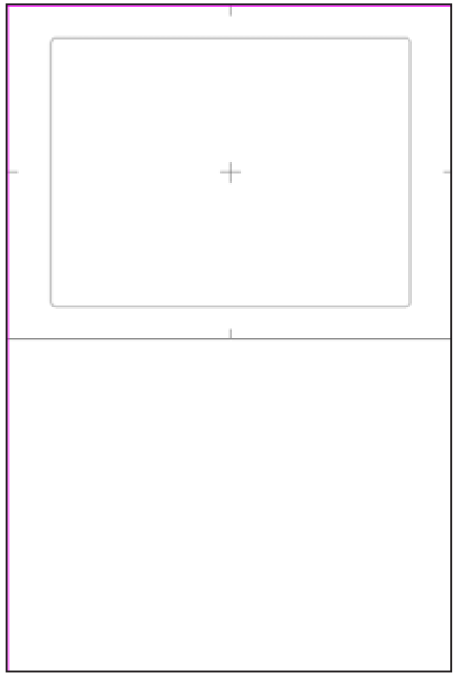
Specifying the drawing paper size based on number of frames

RETAS!PRO allows you to use frame as the unit for specifying a drawing paper size in dialog boxes such as the [New Cels].

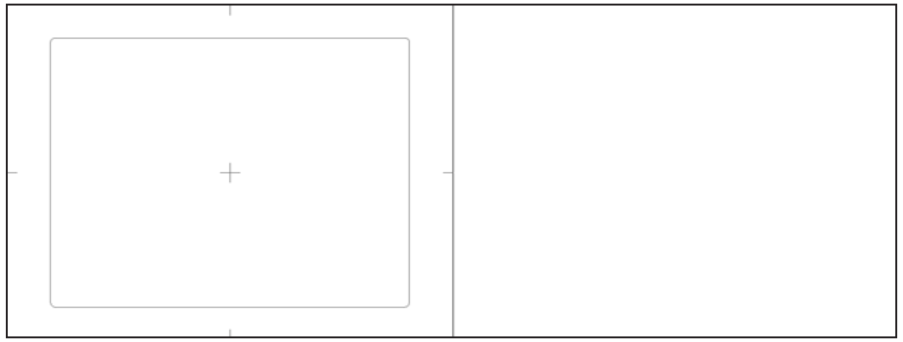
Frame Width: 1.0, Height: 1.0



Frame Width: 1.0, Height: 2.0

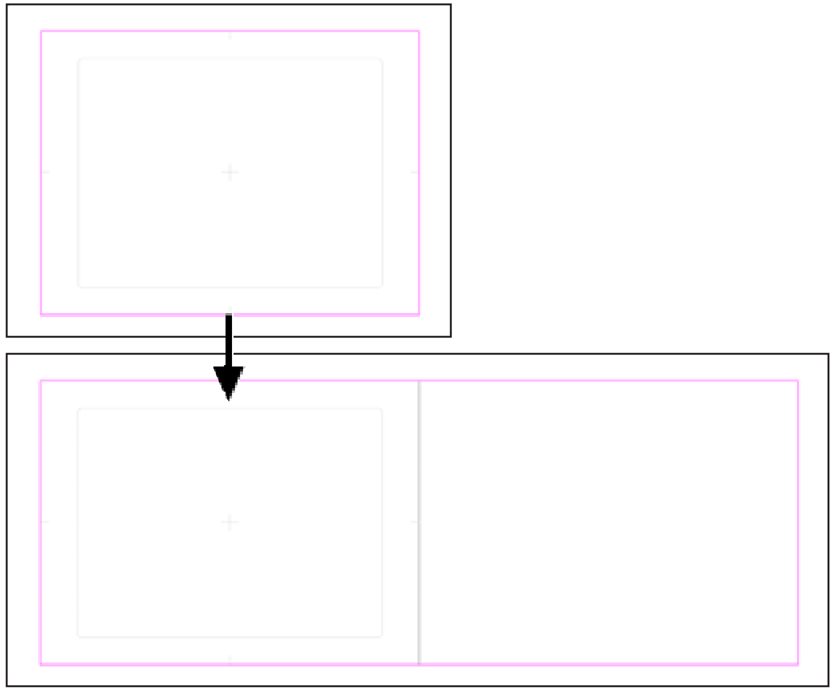


Frame Width: 2.0, Height: 1.0



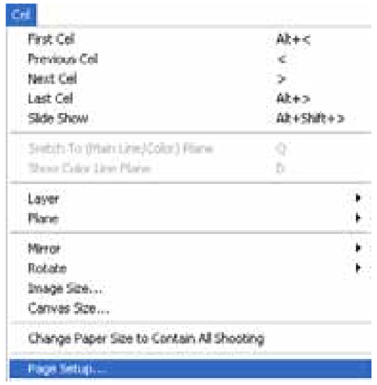
Changing a drawing paper size

The procedure for changing a drawing paper size afterwards is as follows.



1. Open the Page Setup dialog box.

Open the [Cel] window with the drawing paper size you want to change. Then select [Page Setup...] from the [Cel] menu. The [Page Setup...] dialog box that allows you to configure the detailed settings appears.


Cel
First Cel Alt+<
Previous Cel <
Next Cel >
Last Cel Alt+>
Slide Show Alt+Shift+>
Switch To (Main Line/Color) Plane Q
Show Color Line Plane D
Layer
Plane
Mirror
Rotate
Image Size...
Canvas Size...
Change Paper Size to Contain All Shooting
Page Setup...

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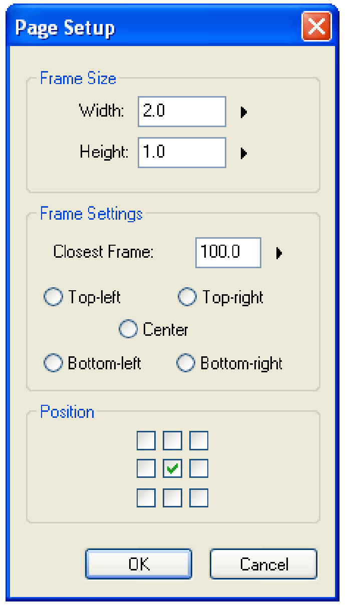
Page Setup dialog box



Page Setup

Frame Size

Width: 2.0

Height: 1.0

Frame Settings

Closest Frame: 100.0

○ Top-left ○ Top-right

○ Center

○ Bottom-left ○ Bottom-right

Position

☐ ☐ ☐
☐ ☑ ☐
☐ ☐ ☐

[Frame Size]

Specify the width-to-height ratio of the drawing paper's frame.

[Frame Settings]

- **[Closest Frame]**
  Allows you to specify how close (T. U.) the frame will be with respect to the drawing paper to create. TraceMan adjusts the distance so that the size of the closest (T.U.) frame becomes "100Frame".
- **Frame position**
  Allows you to select the anchor frame position for the [Closest Frame] view from among [Top-left], [Top-right], [Center], [Bottom-left], and [Bottom-right].

[Position]

Specify the position where you want the original image to appear after the size change.

[OK]

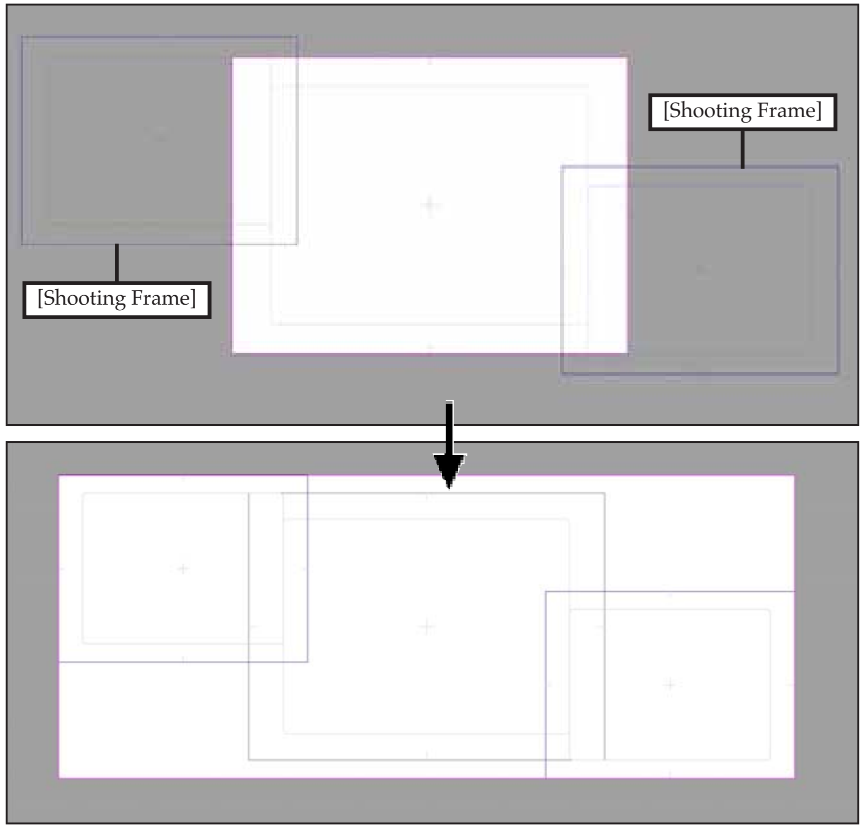
Confirms the settings and closes the dialog box.

[Cancel]

Cancels the settings and closes the dialog box.

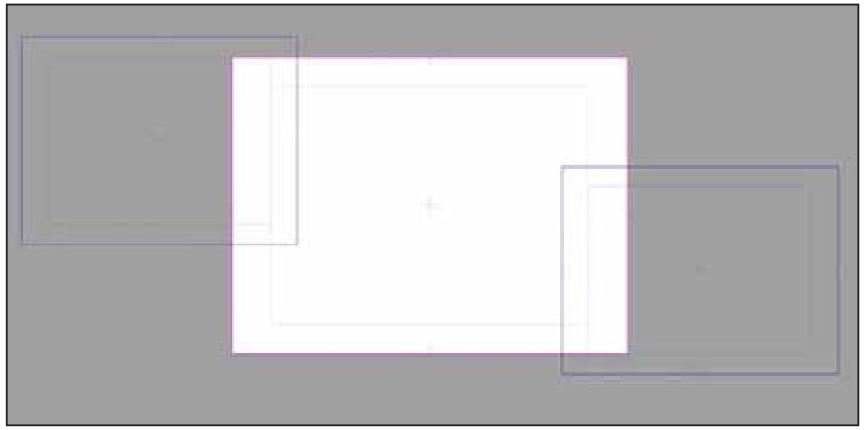
Changing a drawing paper size based on the shooting frame

The procedure for changing a large drawing paper size created using the [Page Setup] dialog box to fit the specified [Shooting Frames] is as follows.



1. Open the Cel window.

Open the [Cel] window with the [Shooting Frame].

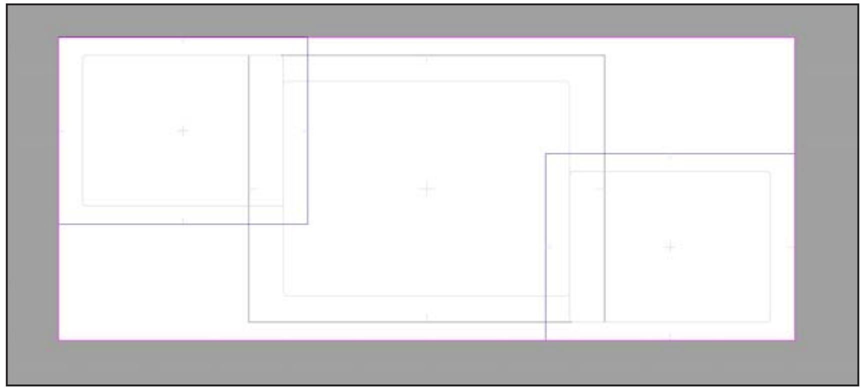


2. Select the command.

Select [Change Paper Size to Contain All Shooting Frames] from the [Cel] menu.

3. Completion

The drawing paper size is changed to accommodate the [Shooting Frames].



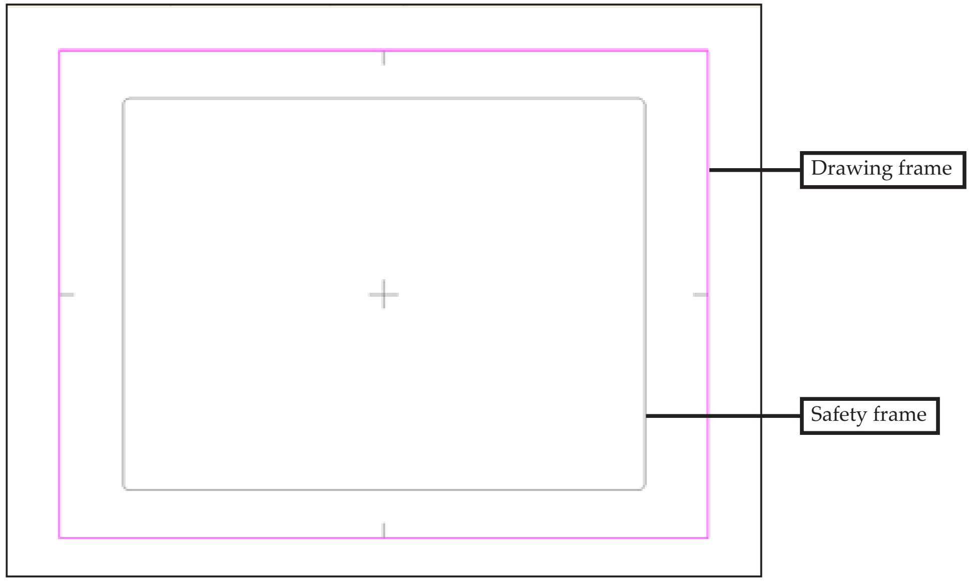
Tips

For details on how to create a [Shooting Frame], see "Chapter 13".

Frames

Drawing frame and safety frame

[Safety Frame] is the inner drawing area, and [Drawing Frame] the tolerance around the inner drawing area.



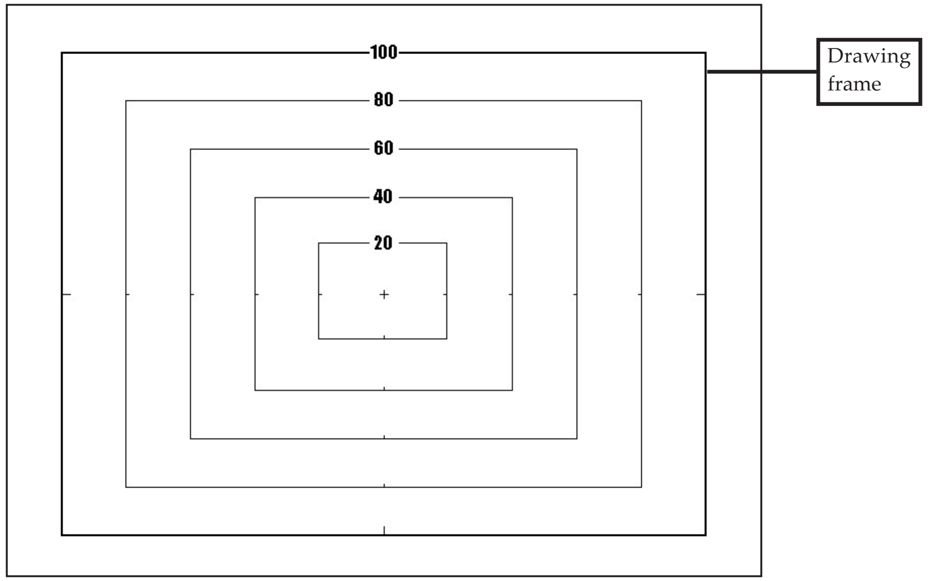
Drawing frame

Is the drawing area. The edges of your drawing must fall beyond this frame. If a drawing edge falls within this frame, a [short drawing exposure] occurs.

Safety frame

Also called TV frame. Is the area that will be shown on the TV screen. Drawing outside this frame may not appear on the TV. So, make sure to draw scenes you want to show on TV inside this frame.

100Frame


100
80
60
40
20
Drawing frame

100Frame means a "drawing frame with a size of 100%". A frame half of the 100Frame size is called "50Frame" whilst a frame twice the 100Frame size is called "200Frame".

Tips

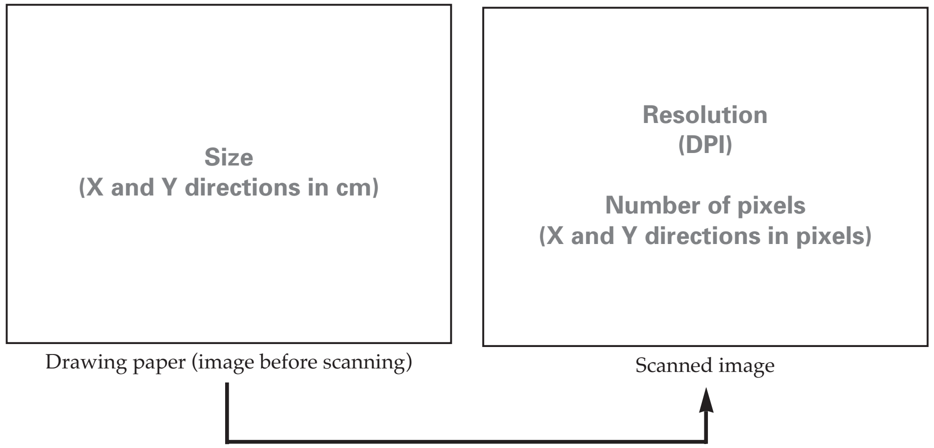
This term is widely used in the animation industry. However, each company/studio has its own interpretation thus the definition above applies to RETAS!PRO only.

Standard resolution

"Standard resolution" is a numeric value of utmost importance in digital animation production.

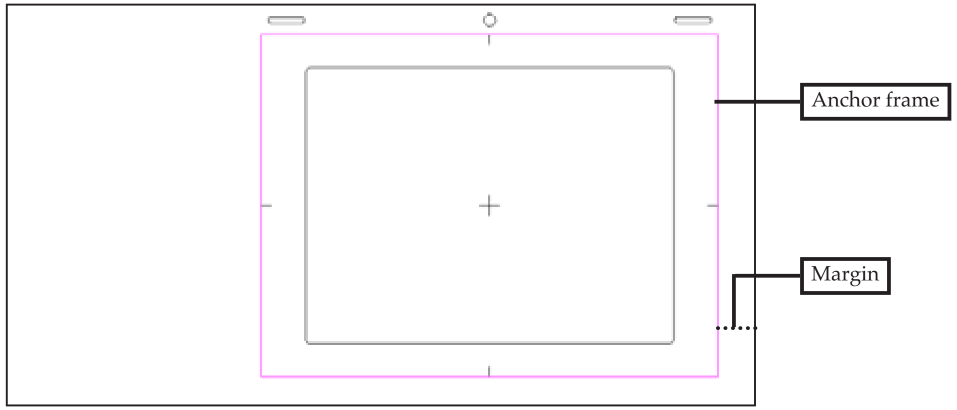
The value gives information about

1. The size of the drawing paper (X and Y directions in cm)
2. The resolution of the scanned image (DPI)
3. The number of pixels in the scanned image (X and Y directions in pixels)


Size
(X and Y directions in cm)
Resolution
(DPI)
Number of pixels
(X and Y directions in pixels)
Drawing paper (image before scanning)
Scanned image

Anchor Frame and Margins

In RETAS!PRO HD, the [Anchor frame] and [Margin] concepts are implemented in all of the series applications.



Anchor frame

The anchor frame is the equivalent to the [Peg Holes] in the conventional inbetween drawing paper.

With conventional inbetween drawing papers, papers of diverse sizes are aligned using the peg holes as reference.

With digital inbetween drawing papers, each animator/assistant aligns the images at his/her discretion by referencing the material when diverse canvas sizes are present as the software canvases do not carry any reference point.

The DGA and CEL formats solve this ambiguity by embedding an "anchor frame" in each image to serve the role of the pegbar for aligning the images automatically when loading them to the Light Table or when overlapping them in a Cel Stack.

Margin

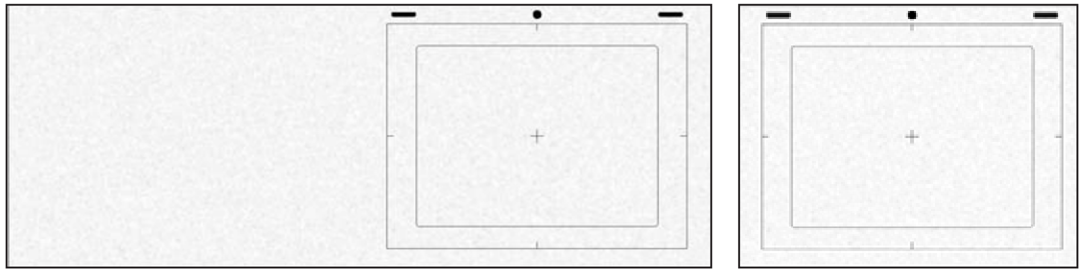
Margin is the area outside the drawing frame.

Margin gives room for camera-works such as "camera shake". However, without clear standards about margin size, inconveniences such as difficulty to identify the margin at a glance, or necessity of on-the-spot adjustment during shooting are often.

In the DGA and CEL formats, the margin is specified based on the drawing frame information embedded in the image so that you can make use of the margin related functions.

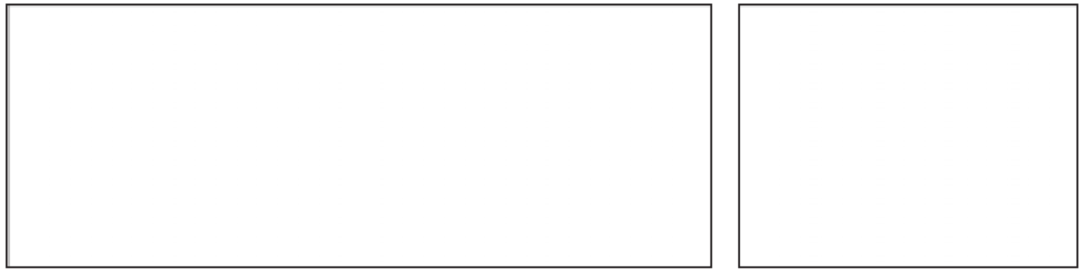
With paper

Positioning is automatic as alignment is done using the [Peg Holes].



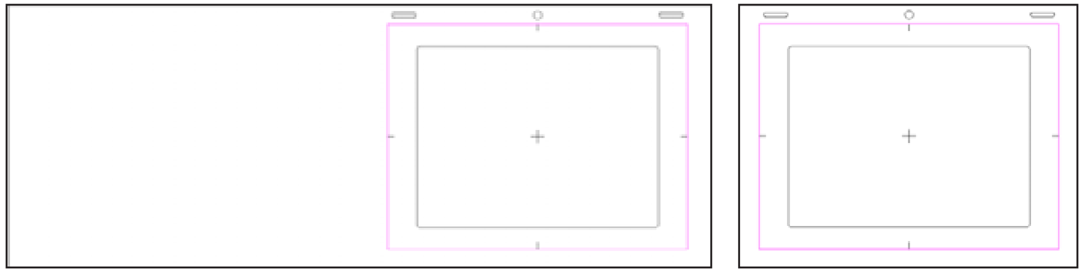
With generic digital format

It is impossible to know whether alignment is [Left], [Center], or [Right] by just seeing the data as there is no [Peg Hole] information.



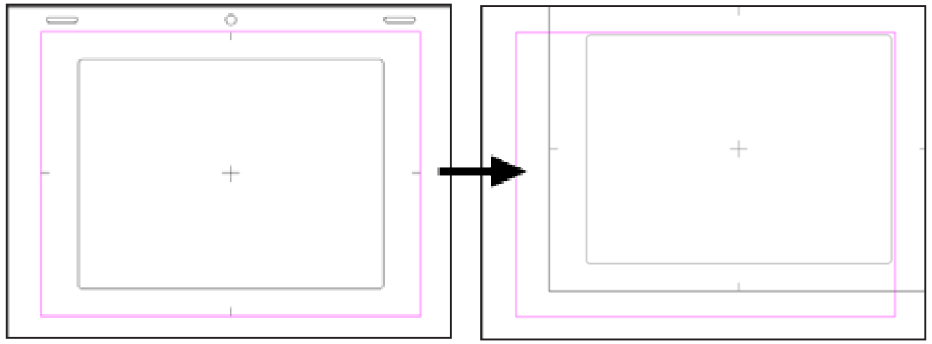
With DGA/CEL format

Positioning when overlapping the images in the light table is automatic as images of different sizes can be aligned using the [Anchor Frame] which is the software equivalent of the [Peg Holes].



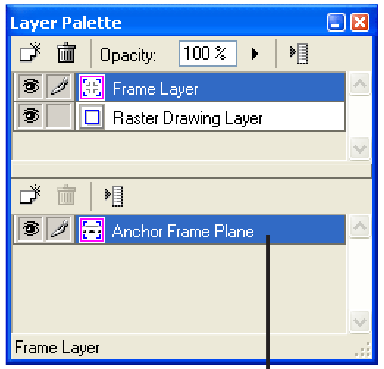
Moving the anchor frame

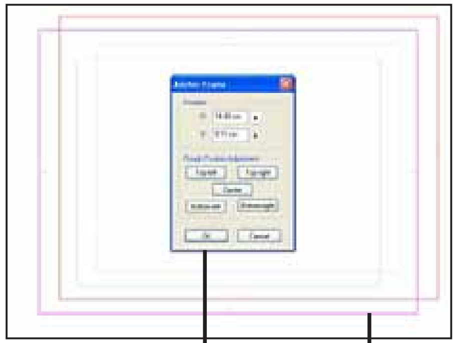
The procedure for moving the [Anchor Frame] which is equivalent to making new peg holes in the drawing paper is as follows.



1. Open the Anchor Frame dialog box.

Open the [Anchor Frame] dialog box and configure the [Anchor Frame] settings.


Layer Palette
Opacity: 100 %
Frame Layer
Raster Drawing Layer
Anchor Frame Plane
Frame Layer

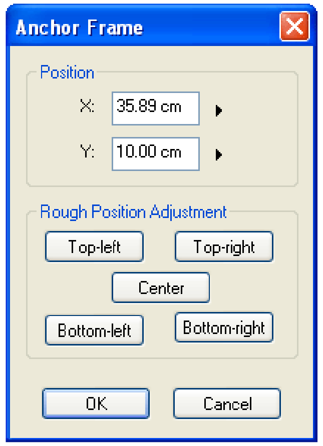


Double click [Anchor Frame Plane] from [Frame Layer] on the [Layer Palette].

Configure the details settings in the [Anchor Frame] dialog box.

Place the mouse pointer at any point within the red frame ([Anchor Frame]) and drag. The [Anchor Frame] moves.

Anchor Frame dialog box



Anchor Frame

Position
X: 35.89 cm
Y: 10.00 cm

Rough Position Adjustment
Top-left
Top-right
Center
Bottom-left
Bottom-right
OK
Cancel

- **[Position]**
  Shows the distance from the upper left corner of the drawing paper to the cross at the center of the [Anchor Frame].

- **[Rough Position Adjustment]**
  Click either [Top-left], [Top-right], [Center], [Bottom-left], or [Bottom-right] button. The [Anchor Frame] will be positioned there.

- **[OK]**
  Confirms the settings and closes the dialog box.
- **[Cancel]**
  Cancels the settings and closes the dialog box.

Chapter 7

Layers and Planes

Multi-layer

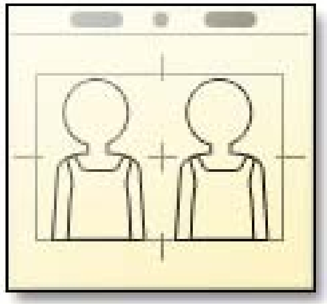
What is DGA or CEL format?

In RETAS!PRO HD, two new proprietary multi-layer image formats have been added to realize two of the design objectives: "high resolution, high quality image" and "one-source, multi-use".

Multi-layered image for drawing: DGA format (Digital Graphic for Animation, extension: dga)

The multi-layer structure of RETAS!PRO is such that allows you to use both vector and raster formats on the same image.

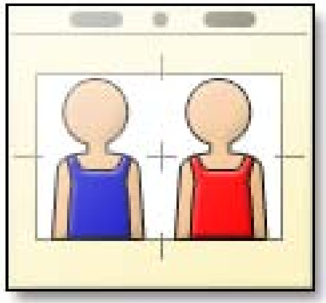
- This is an image format that can be used only with STYLOS HD.
- Image in this format can be only browsed with TraceMan HD and PaintMan HD.
- Data structure of this format is specialized for linear drawing, a characteristic of drawings used in animation and is not compatible with the painting and post-painting processes.
- Images in this format can be used in processes covered by STYLOS HD, that is from layout drawing to keys and inbetweens drawing, and drawing correction.



Multi-layered image for Painting: CEL format (Cel, extension: cel)

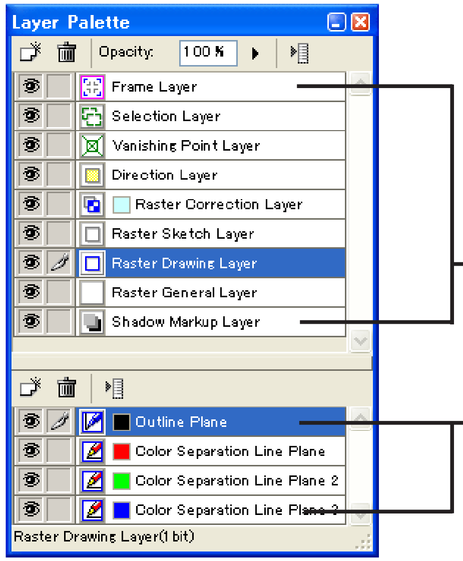
The multi-layer structure of RETAS!PRO is such that allows you to use both vector and raster formats on the same image.

- This format is used mainly with TraceMan HD and PaintMan HD.
- An image in this format can be only browsed with STYLOS HD.
- This is an image format used mainly in the painting and post-painting processes.



What is a multi-layer structure?

Images in DGA or CEL format are composed of "layers" dedicated to a particular process, and each layer is composed of "planes" which are where editing can be done. The export of a layer is selectable, that is, you can exclude those that are only necessary during intermediate processes but not in the final output from the export.


Layer Palette
Opacity: 100 %
Frame Layer
Selection Layer
Vanishing Point Layer
Direction Layer
Raster Correction Layer
Raster Sketch Layer
Raster Drawing Layer
Raster General Layer
Shadow Markup Layer
Outline Plane
Color Separation Line Plane
Color Separation Line Plane 2
Color Separation Line Plane 3
Raster Drawing Layer(1 bit)

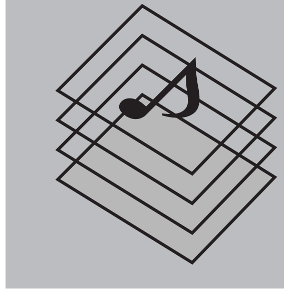
Layers of diverse formats can be used in DGA/CEL format.

With DGA/CEL format, each layer has in turn have child layers, that is, planes under it.

Tips

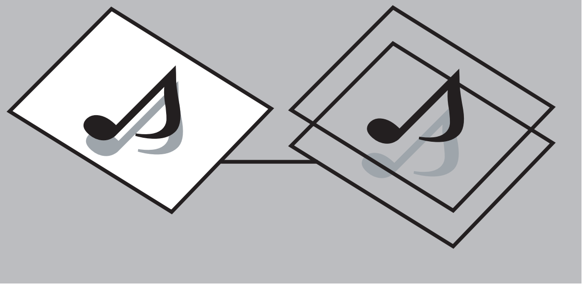
Layer

You may think the layer as the equivalent to a cel in the animation. Thus, an image is a hierarchical structure composed of multiple overlapping layers.



Plane

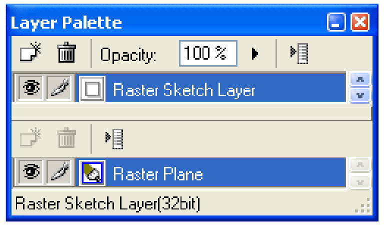
Each of the layers itself has a hierarchical structure composed of planes, where a plane is the smallest unit of image. Planes can be added and deleted as needed.

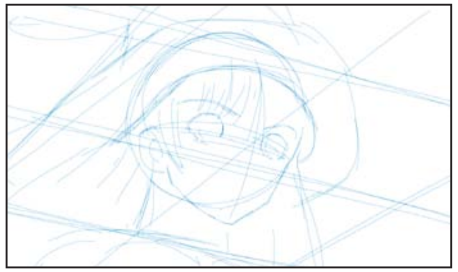


Drawing-related layers

Raster sketch layer (Only DGA)

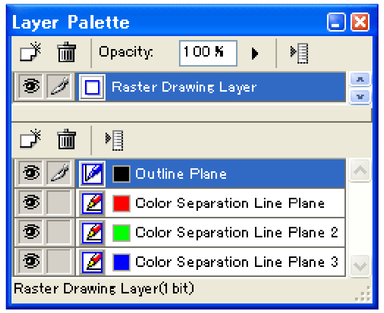
Raster format layer for drawing sketches.
Lines drawn in this layer get thicker as they are redrawn as when drawing with a pencil.

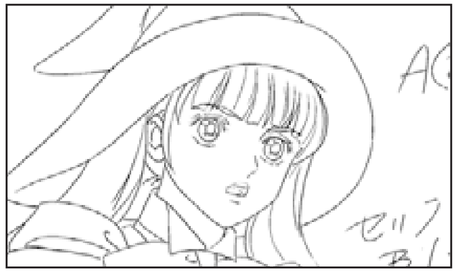

Layer Palette
Opacity: 100 %
Raster Sketch Layer
Raster Plane
Raster Sketch Layer(32bit)



Raster drawing layer (Only DGA)

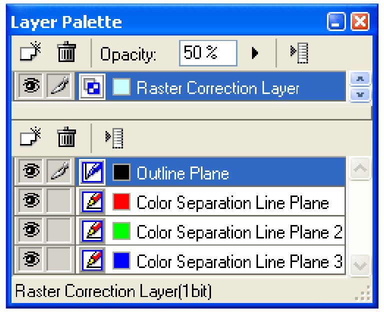
Raster format layer for drawing.
Outlines and color separation lines can be added to drawings in this layer. You can also use this layer to change the order of the drawings.

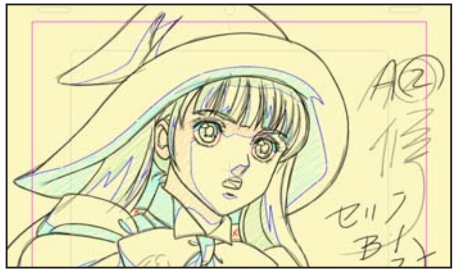

Layer Palette
Opacity: 100 %
Raster Drawing Layer
Outline Plane
Color Separation Line Plane
Color Separation Line Plane 2
Color Separation Line Plane 3
Raster Drawing Layer(1 bit)



Raster correction layer (Only DGA)

Raster format layer for correcting drawings.

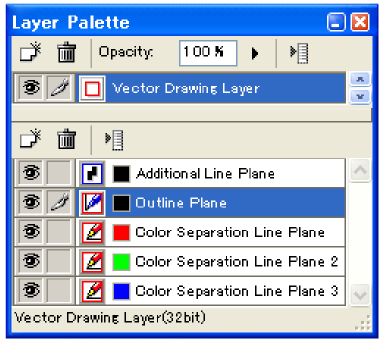

Layer Palette
Opacity: 50 %
Raster Correction Layer
Outline Plane
Color Separation Line Plane
Color Separation Line Plane 2
Color Separation Line Plane 3
Raster Correction Layer(1 bit)

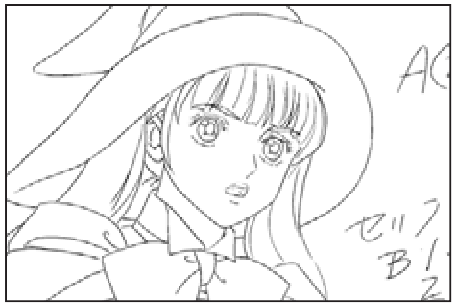


[Correction Layer] over [Drawing Layer]

Vector drawing layer (Only DGA)

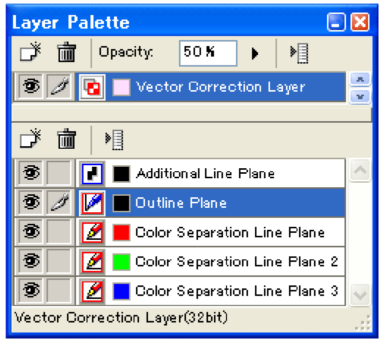
Vector format layer for drawing.
Outlines and color separation lines can be added to drawings in this layer. You can also use this layer to change the order of the drawings.

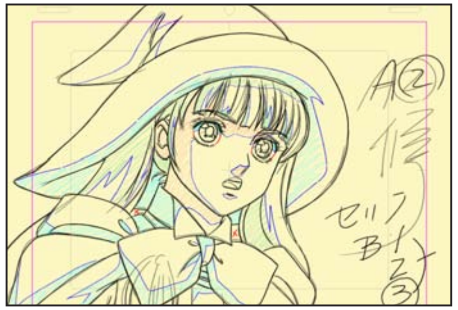

Layer Palette
Opacity: 100 %
Vector Drawing Layer
Additional Line Plane
Outline Plane
Color Separation Line Plane
Color Separation Line Plane 2
Color Separation Line Plane 3
Vector Drawing Layer(32bit)



Vector correction layer (Only DGA)

Vector format layer for correcting drawings.


Layer Palette
Opacity: 50 %
Vector Correction Layer
Additional Line Plane
Outline Plane
Color Separation Line Plane
Color Separation Line Plane 2
Color Separation Line Plane 3
Vector Correction Layer(32bit)



[Correction Layer] over [Drawing Layer]

Tips

- Drawings on the raster drawing layer are internally processed with 8 times the necessary resolution. For this reason, images of these drawings can be enlarged to a certain extent without losing quality.
- It is not possible to have a mix of raster and vector drawing layers on the same image.

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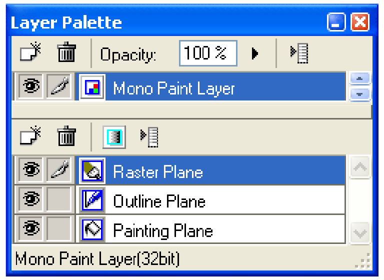
Painting and BG-related layers

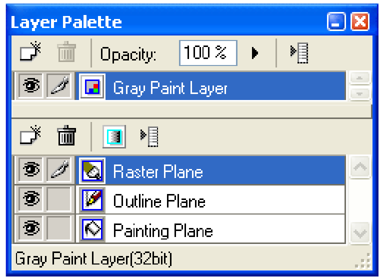
Mono paint layer (Only CEL)

When a [Mono Trace] image from the conventional RETAS!PRO is loaded to RETAS!PRO HD, it is loaded as an image having a [Mono Paint Layer]. Internally, the [Mono Paint Layer] comprises the [Outline Plane] and the [Painting Plane] which allows you to work as usual, by switching between [Outline] and [Painting].


Layer Palette
Opacity: 100 %
Mono Paint Layer
Raster Plane
Outline Plane
Painting Plane
Mono Paint Layer(32bit)

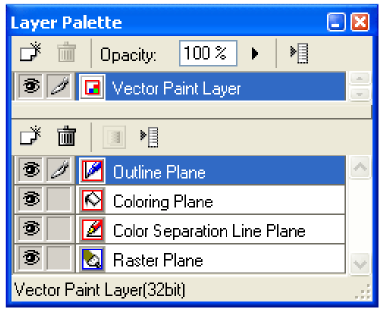
Gray paint layer (Only CEL)

When a [Gray Trace] image from the conventional RETAS!PRO is loaded to RETAS!PRO HD, it is loaded as an image having a [Gray Paint Layer]. Internally, the [Gray Paint Layer] comprises the [Gray Plane] and the [Painting Plane] which allows you to work as usual, by switching between [Outline] and [Painting].


Layer Palette
Opacity: 100 %
Gray Paint Layer
Raster Plane
Outline Plane
Painting Plane
Gray Paint Layer(32bit)

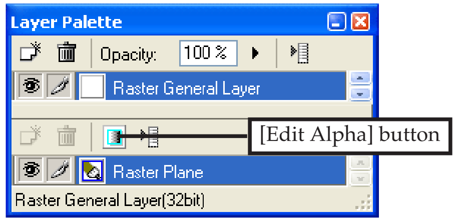
Vector paint layer (Only CEL)

This layer is the destination layer when exporting a drawing drawn on the [Vector Drawing Layer] with STYLOS HD for painting, or the layer used by an image that is vector traced with TraceMan HD.
Using the [Vector Paint Layer] with PaintMan HD allows you to paint the data using the vector format.

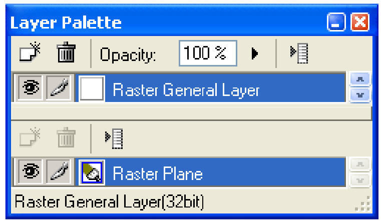

Layer Palette
Opacity: 100 %
Vector Paint Layer
Outline Plane
Coloring Plane
Color Separation Line Plane
Raster Plane
Vector Paint Layer(32bit)

Raster general layer

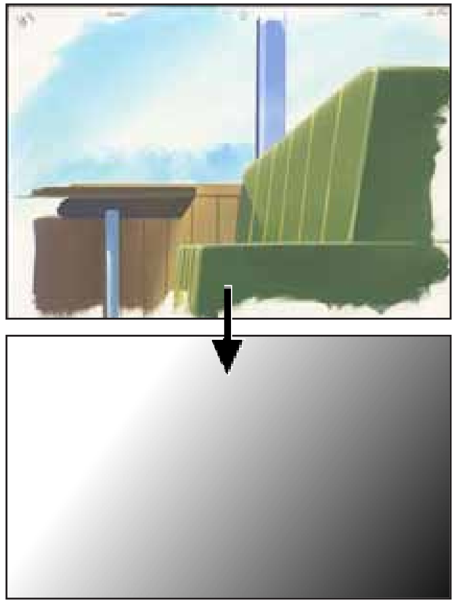
[Raster General Layer] is a layer used mainly for general bitmap images such as background.


Layer Palette
Opacity: 100 %
Raster General Layer
[Edit Alpha] button
Raster Plane
Raster General Layer(32bit)

(STYLOS HD)


Layer Palette
Opacity: 100 %
Raster General Layer
Raster Plane
Raster General Layer(32bit)

(TraceMan HD and PaintMan HD)



Alpha channel

Tips

In TraceMan HD and PaintMan HD, it is possible to edit the [Transparency] of the [Raster Plane] under the [Raster General Layer].

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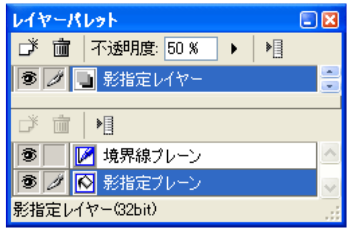
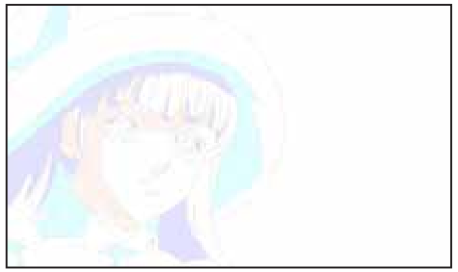
Non-image related layers

Shadow markup layer (Only DGA)

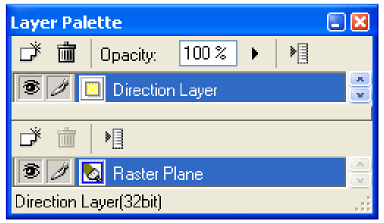
This is a layer exclusively for shadow markup. Create this layer on top of the drawing layer so that you can perform the shadow markup by referencing the contents of the [Outline Plane] and/or [Color Separation Line Plane] of the drawing layer. You can mark the shadows by painting with the [Fill] tool (instead of using the traditional color pencil) or mark the parts that do not need paint at all.

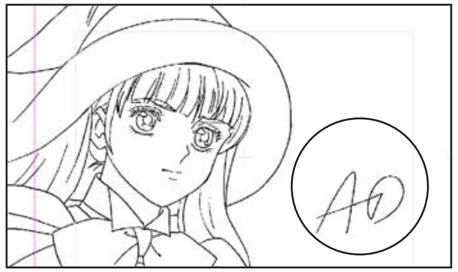

レイヤーパレット
不透明度: 50 %
影指定レイヤー
境界線プレーン
影指定プレーン
影指定レイヤー(32bit)



Direction layer

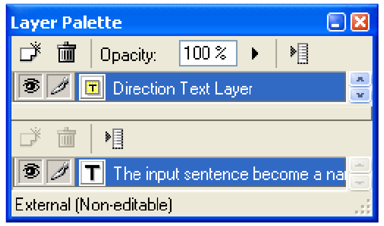
This layer is for drawing directions related to images. Since contents on the direction layer are ignored in a normal rendering, you can draw any direction without fear of affecting the image.

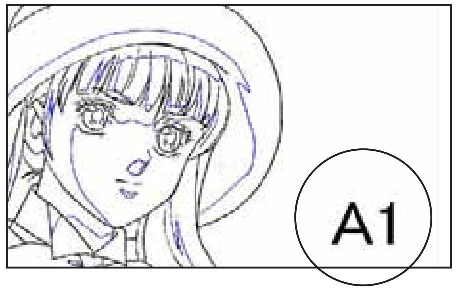

Layer Palette
Opacity: 100 %
Direction Layer
Raster Plane
Direction Layer(32bit)



Direction text layer

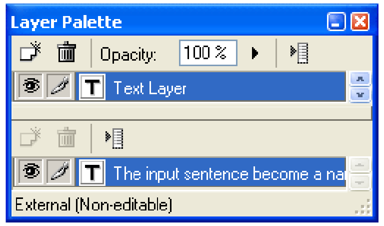
This layer is for writing directions related to images. The text of the direction can be edited.
Since contents on the direction text layer are ignored in a normal rendering, you can write any direction without fear of affecting the image.

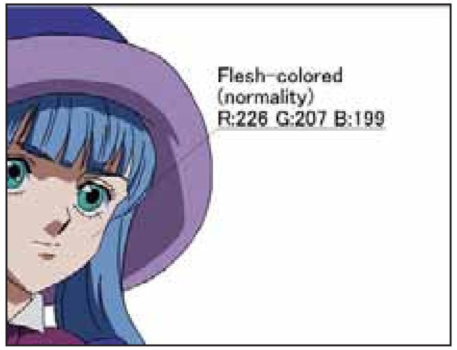

Layer Palette
Opacity: 100 %
Direction Text Layer
The input sentence become a na
External (Non-editable)



Text layer

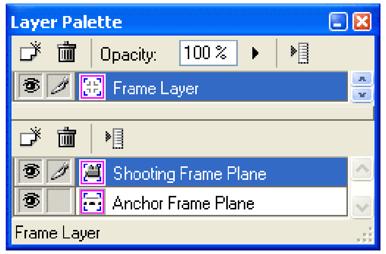
This is a layer for texts. The text can be edited. It is also possible to add a line to the text.

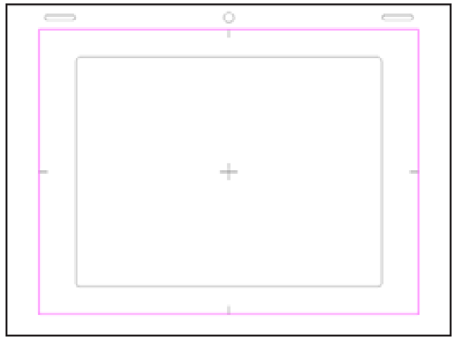

Layer Palette
Opacity: 100 %
Text Layer
The input sentence become a na
External (Non-editable)

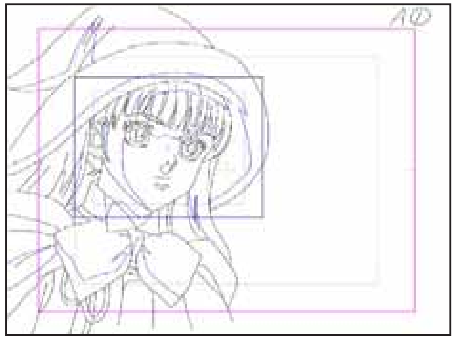

Flesh-colored
(normality)
R:226 G:207 B:199

Frame layer

This is a layer for show the [Anchor Frame Plane] and/or the [Shooting Frame Plane] on the image to help you in the positioning.


Layer Palette
Opacity: 100 %
Frame Layer
Shooting Frame Plane
Anchor Frame Plane
Frame Layer



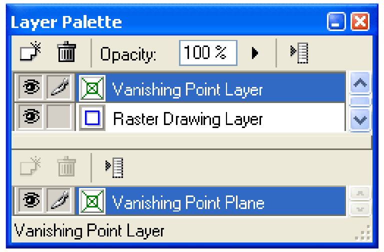


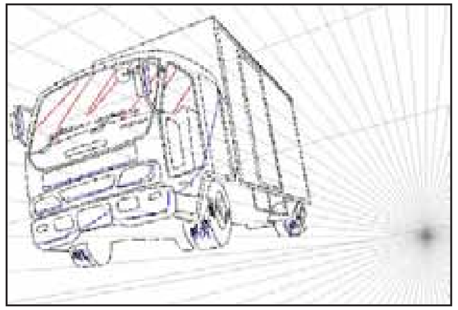
Tips

There are two types of shadow markup layers, those created with [Cel] → [Shadow Markup...], and those created with [Layer] → [New Layer] from the [Layer Palette].

Vanishing point layer

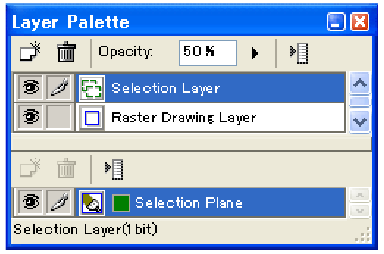
This is a layer for specifying and keeping a vanishing point for drawing with perspective.

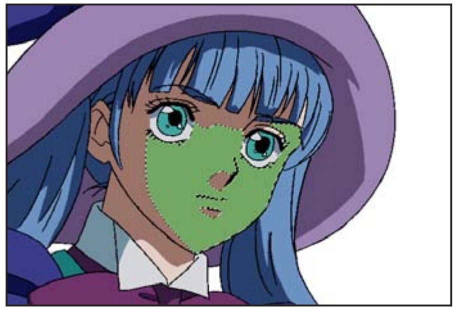

Layer Palette
Opacity: 100 %
Vanishing Point Layer
Raster Drawing Layer
Vanishing Point Plane
Vanishing Point Layer



Selection layer

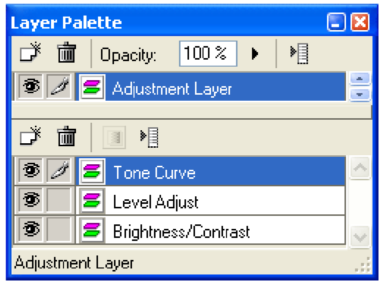
This is a layer for saving and editing a selection. A selection can also be created by drawing with a drawing tool while referencing the contents of other layers.

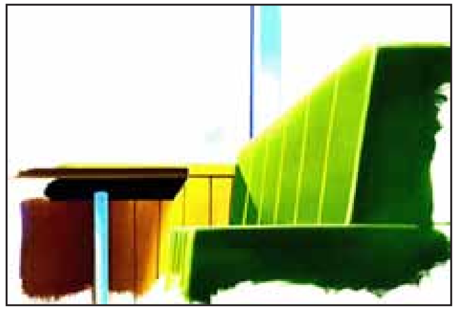

Layer Palette
Opacity: 50 %
Selection Layer
Raster Drawing Layer
Selection Plane
Selection Layer(1 bit)



Adjustment layer (Only CEL)

This is a layer that results from the layerization of a tone adjustment on an image.
Tone adjustment settings can be changed as well as reset.


Layer Palette
Opacity: 100 %
Adjustment Layer
Tone Curve
Level Adjust
Brightness/Contrast
Adjustment Layer



Layer

Basic operations using Layer Palette

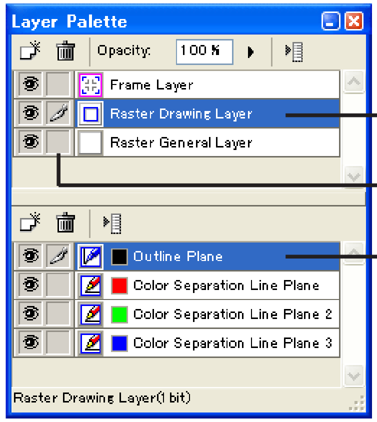
Layer operations are performed using the [Layer Palette].

1. Selecting a layer

To select a layer, click the layer name field in the upper part of the [Layer Palette]. The layer is selected when shown highlighted.

2. Selecting a plane

The plane must be selected from the lower part of the [Layer Palette] after the layer. To select, click the plane name field. The plane is selected when shown highlighted.


Layer Palette
Opacity: 100 %
Frame Layer
Raster Drawing Layer
Raster General Layer
Outline Plane
Color Separation Line Plane
Color Separation Line Plane 2
Color Separation Line Plane 3
Raster Drawing Layer(1 bit)

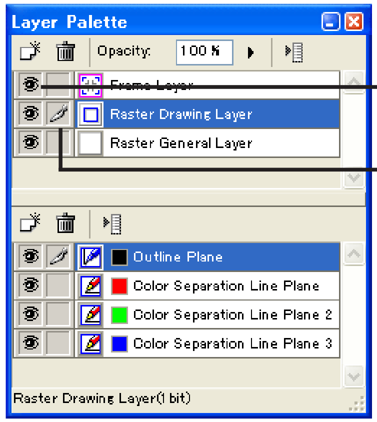
❶ Select the layer.

To select multiple layers, select by clicking on the [Drawing Permission] column.

❷ Select the plane.

3. Showing/Hiding a layer or plane

The content of an image layer and/or plane to be shown in a [Cel] window can be shown or hidden by clicking the [Show/Hide Layer] icon on the [Layer Palette].


Layer Palette
Opacity: 100 %
Frame Layer
Raster Drawing Layer
Raster General Layer
Outline Plane
Color Separation Line Plane
Color Separation Line Plane 2
Color Separation Line Plane 3
Raster Drawing Layer(1 bit)

[Show/Hide Layer] icon

[Drawing Permission] icon: Clicking this icon when the [Show/Hide Layer] icon is shown enables drawing and editing on the layer.

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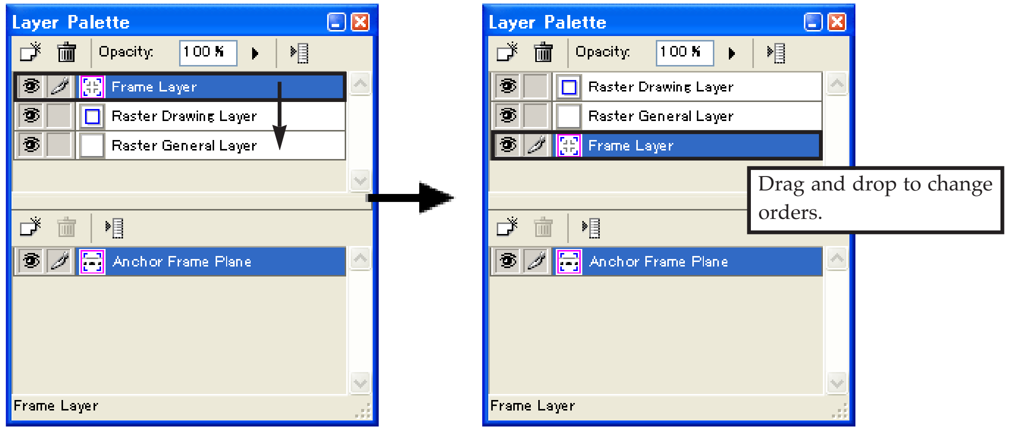
4. Changing a layer/plane order

The order in which a layer/plane is arranged within an image can be changed by dragging and dropping.

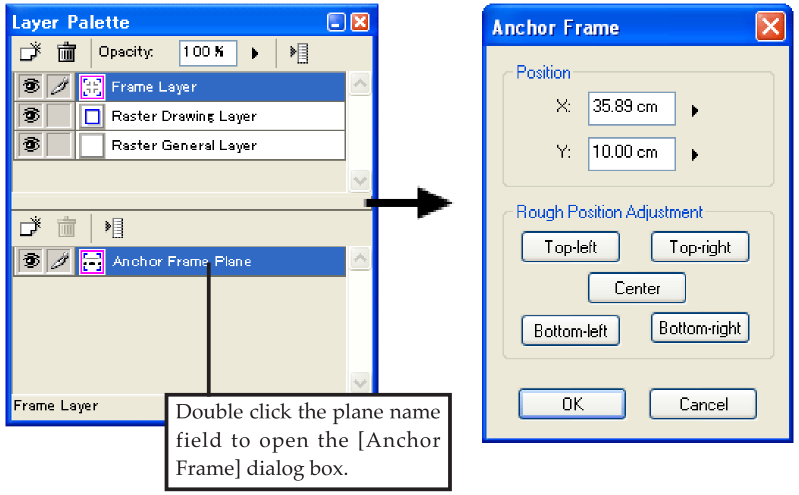

Layer Palette
Opacity: 100 %
Frame Layer
Raster Drawing Layer
Raster General Layer
Anchor Frame Plane
Frame Layer
Layer Palette
Opacity: 100 %
Raster Drawing Layer
Raster General Layer
Frame Layer
Anchor Frame Plane
Frame Layer

Drag and drop to change orders.

5. Changing a plane settings

Planes whose settings are changeable using a dialog box are as follows.

- [Anchor Frame Plane] and [Shooting Frame Plane] of the [Frame Layer]
- [Vanishing Point Plane] of the [Vanishing Point Layer]
- [Brightness/Contrast], [Level Adjust], and [Tone Curve] of the [Adjustment Layer] (Only TraceMan HD and PaintMan HD)
- [Text Plane] of the [Text Layer] and [Direction Text Layer]


Layer Palette
Opacity: 100 %
Frame Layer
Raster Drawing Layer
Raster General Layer
Anchor Frame Plane
Frame Layer
Anchor Frame
Position
Rough Position Adjustment
Top-left
Top-right
Center
Bottom-left
Bottom-right
OK
Cancel

X: 35.89 cm
Y: 10.00 cm

Double click the plane name field to open the [Anchor Frame] dialog box.

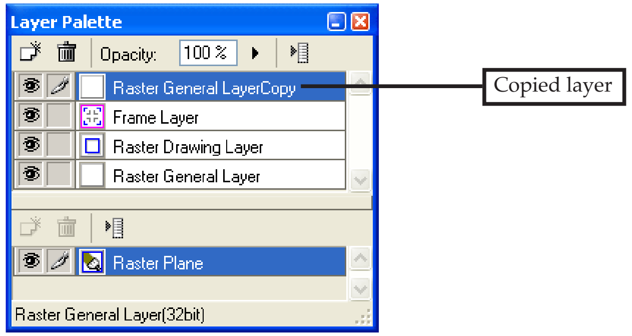
Copying a layer or plane

The procedure for copying a selected layer or plane is as follows.

Copying a layer

Select the layer you want to copy from the [Layer Palette] then select [Layer] → [Copy] from the [Cel] menu. A layer named [○○○ Copy] appears on the [Layer Palette].

You may also make a copy by selecting [Copy] under [Show Layer Menu] in the [Layer Palette].

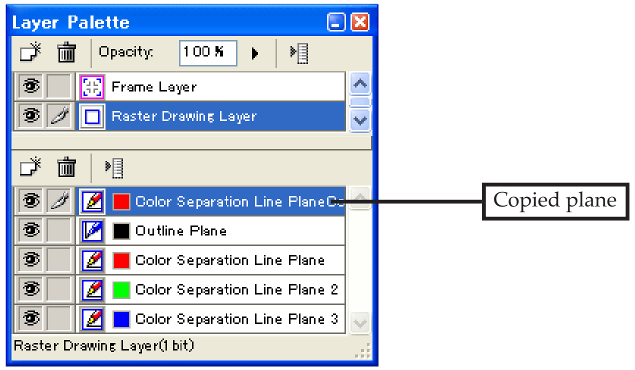

Layer Palette
Opacity: 100 %
Raster General LayerCopy
Frame Layer
Raster Drawing Layer
Raster General Layer
Raster Plane
Raster General Layer(32bit)

Copied layer

Copying a plane

Select the plane you want to copy from the [Layer Palette] then select [Plane] → [Copy] from the [Cel] menu. A plane named [○○○ Copy] appears on the [Layer Palette].

You may also make a copy by selecting [Copy] under [Show Plane Menu] in the [Layer Palette].


Layer Palette
Opacity: 100 %
Frame Layer
Raster Drawing Layer
Color Separation Line PlaneC
Outline Plane
Color Separation Line Plane
Color Separation Line Plane 2
Color Separation Line Plane 3
Raster Drawing Layer(1 bit)

Copied plane

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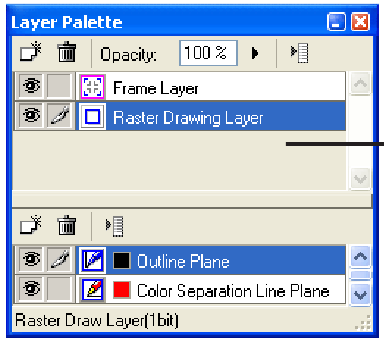
Deleting a layer or plane

The procedure for deleting a selected layer is as follows.

Deleting a layer

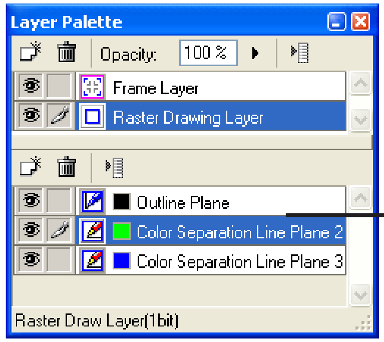
Click the layer you want to delete on the [Layer Palette] then select [Layer] → [Delete] from the [Cel] menu. The selected layer is deleted. You may also delete by selecting [Delete] under [Show Layer Menu] in the [Layer Palette].


Layer Palette
Opacity: 100 %
Frame Layer
Raster Drawing Layer
Outline Plane
Color Separation Line Plane
Raster Draw Layer(1bit)

Layer is deleted.

Deleting a plane

Click the plane you want to delete on the [Layer Palette] then select [Plane] → [Delete] from the [Cel] menu. The selected plane is deleted. You may also delete by selecting [Delete] under [Show Plane Menu] in the [Layer Palette].


Layer Palette
Opacity: 100 %
Frame Layer
Raster Drawing Layer
Outline Plane
Color Separation Line Plane 2
Color Separation Line Plane 3
Raster Draw Layer(1bit)

Plane is deleted.

Tips

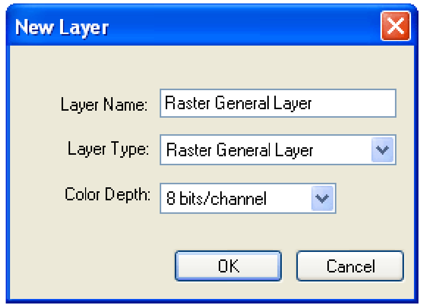
Selecting [Delete Hidden Layer] from the [Layer] menu allows you to delete a hidden layer (a layer without the eye icon) from the [Layer Palette].

Creating a new layer or plane

The procedure for creating or adding a new layer or plane is as follows.

Creating a new layer

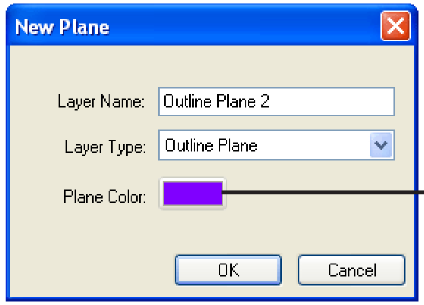
Select [Layer] → [New] from the [Cel] menu. The [New Layer] dialog box appears. Enter the [Layer Name] and select the [Layer Type] and [Color Depth] then click [OK] to create the layer.


New Layer
OK
Cancel

Layer Name: Raster General Layer
Layer Type: Raster General Layer
Color Depth: 8 bits/channel

Creating a new plane

Select [Plane] → [New] from the [Cel] menu. The [New Plane] dialog box appears. Enter the [Plane Name] and select the [Plane Type] then click [OK] to create the plane.


New Plane
Plane Color:
OK
Cancel

Layer Name: Outline Plane 2
Layer Type: Outline Plane

For some planes, also select a [Plane Color].

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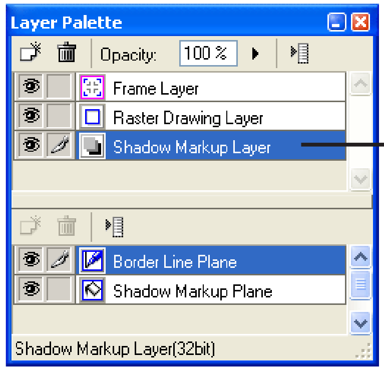
Converting a layer

The procedure for converting a layer to a layer of different type is as follows.

1. Select the layer.

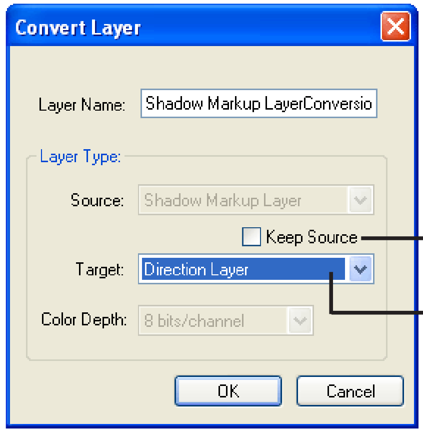
Select the layer you want to convert to another type from the [Layer Palette].


Layer Palette
Opacity:
100 %
Frame Layer
Raster Drawing Layer
Shadow Markup Layer
Border Line Plane
Shadow Markup Plane
Shadow Markup Layer(32bit)

Example: Select [Shadow Markup Layer].

2. Configure the [Convert Layer] dialog box settings.

Select [Layer] → [Convert...] from the [Cel] menu. The [Convert Layer] dialog box appears. Enter [Layer Name] and select [Target] in [Layer Type].


Convert Layer
Layer Type:
OK
Cancel

Layer Name: Shadow Markup LayerConversio

Source: Shadow Markup Layer

☐ Keep Source

Target: Direction Layer

Color Depth: 8 bits/channel

Select to keep the original layer after conversion.

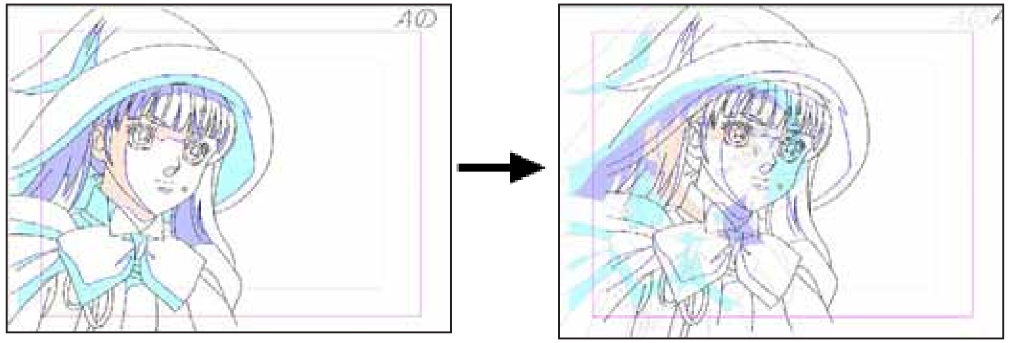
Select the target layer type.

3. Completion

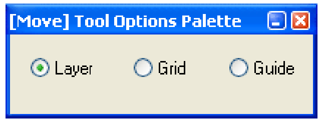
Click [OK] to convert the layer. The converted layer is added to the [Layer Palette].

Move tool

The [Move] tool on the [Tool Palette] allows you to scroll only a selected layer by dragging.



Move tool options palette


[Move] Tool Options Palette

● Layer ○ Grid ○ Guide

- **[Layer]**
  Moves the layer.
- **[Grid]**
  Moves the grids.
- **[Guide]**
  Moves the guide.

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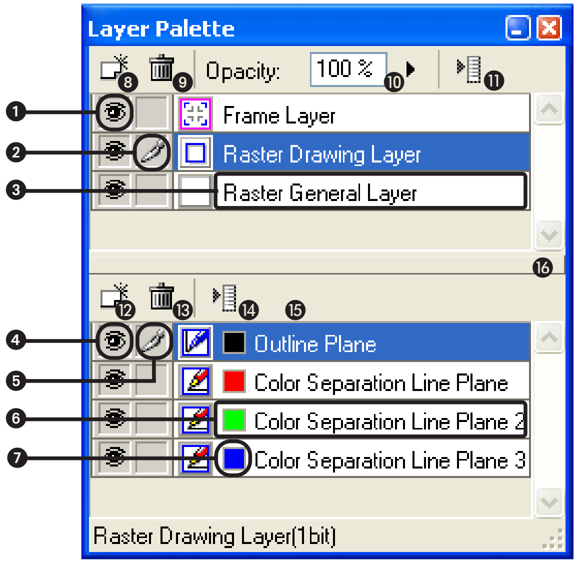
Name of the Layer Palette parts

The [Layer Palette] opens when you select [Layer Palette] from the [Window] menu.


Layer Palette
Opacity:
100 %
Frame Layer
Raster Drawing Layer
Raster General Layer
Outline Plane
Color Separation Line Plane
Color Separation Line Plane 2
Color Separation Line Plane 3
Raster Drawing Layer(1bit)
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯

* The view items below are items toggled with a mouse click.

① **[Show/Hide Layer] icon**
The layer is visible when the icon is visible.

② **[Drawing Permission] icon**
Drawing/editing on the layer is possible when the icon is visible. Select clicking this icon to select multiple layers simultaneously.

③ **[Layer Name] field**
Click to select. The layer is selected (active) when the field is shown in blue.

④ **[Show/Hide Plane] icon**
The plane is visible when the icon is visible.

⑤ **[Drawing Permission] icon**
Drawing/editing on the plane is possible when the icon is visible. Select clicking this icon to select multiple planes simultaneously.

⑥ **[Plane Name] field**
Click to select. The layer is selected (active) when the field is shown in blue.
Some planes show the dialog box that allows you to edit or reconfigure the settings when double clicked.

⑦ **[Plane Color] button**
Clicking the button shows a dialog box that allows you to change the plane color (color of the plane).

⑧ **[Create New Layer] button**
Clicking the button shows the [New Layer] dialog box that allows you to create a new layer.

⑨ **[Delete Layer] button**
Deletes the selected layer.

⑩ **[Opacity] field**
This field allows you to adjust the opacity of the shown image by direct input or slider operation.

⑪ **[Show Layer Menu] button**
Shows the layer menu.

⑫ **[Create New Plane] button**
Clicking the button shows the [New Plane] dialog box that allows you to create a new plane.

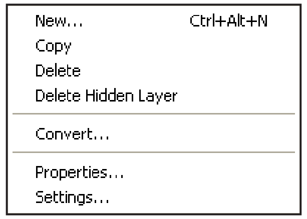
⑬ **[Delete Plane] button**
Deletes the selected plane.

⑭ **[Edit Alpha] button (Only TraceMan HD and PaintMan HD)**
Shows the [Raster Plane] alpha channel.

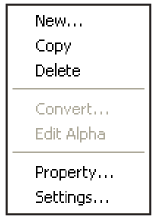
⑮ **[Show Plane Menu] button**
Shows the plane menu.

⑯ **Palette split bar**
The split bar allows you to change the sizes of the layer and plane panes in the [Layer Palette]. To change the sizes, put the mouse pointer on the split bar and slide it up/down.

Layer menu and Plane menu


New... Ctrl+Alt+N
Copy
Delete
Delete Hidden Layer
Convert...
Properties...
Settings...

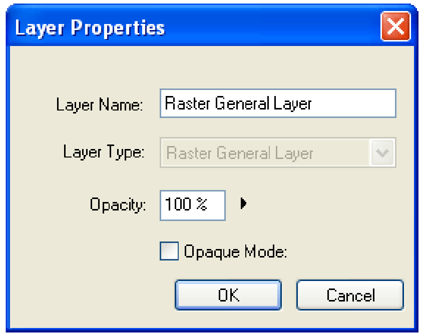
Layer menu


New...
Copy
Delete
Convert...
Edit Alpha
Property...
Settings...

Plane menu
(Screen image of TraceMan HD or PaintMan HD)

- **[New...]**
  Shows the [New Layer/Plane] dialog box that allows you to create a new layer or plane.
- **[Copy]**
  Allows you to make a copy of the selected layer/plane.
- **[Delete]**
  Allows you to delete the selected layer/plane.
- **[Delete Hidden Layer]**
  Allows you to delete a layer whose [Show/Hide] icon is turned off.
- **[Convert...]**
  Opens the [Convert Layer] dialog box that allows you to convert a layer/plane.
- **[Edit Alpha] (Only TraceMan HD and PaintMan HD)**
  Allows you to edit the [Raster Plane] alpha channel.
- **[Property...]**
  Opens the [Layer/Plane Properties] dialog box.
- **[Settings...]**
  Opens the settings dialog box when either [Frame Layer], [Vanishing Point Layer], or [Adjustment Layer] (only TraceMan HD and PaintMan HD) is selected.

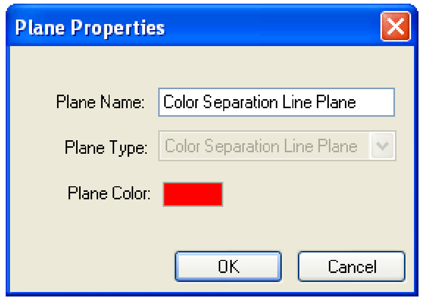
Layer Properties dialog box


Layer Properties
OK
Cancel

Layer Name: Raster General Layer
Layer Type: Raster General Layer
Opacity: 100 %
☐ Opaque Mode:

- **[Layer Name]**
  Allows you to change the layer name.
- **[Layer Type]**
  Shows the layer type.
- **[Opacity]**
  Allows you to change the layer opacity.
- **[Opaque Mode] (Only raster general layer)**
  Turns off the [Opacity].

Plane Properties dialog box


Plane Properties
OK
Cancel

Plane Name: Color Separation Line Plane
Plane Type: Color Separation Line Plane
Plane Color: 🟥

- **[Plane Name]**
  Allows you to change the plane name.
- **[Plane Type]**
  Shows the plane type.
- **[Plane Color] (Only some planes)**
  Allows you to change the plane color using the [Color Settings] or [Color] dialog box.

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List of layers and planes

S: STYLOS HD T: TraceMan HD P: PaintMan HD

Drawing-related layers

Layer/Plane	S	T	P	Description
Raster sketch layer	●	×	×	**Layer for drawing sketches**
Raster plane	●	×	×	Plane for drawing lines in raster format
Raster drawing layer	●	×	×	**Layer for raster-based drawing**
Outline plane	●	×	×	Plane for saving outlines
Color separation line plane	●	×	×	Plane for saving color separation lines
Vector drawing layer	●	×	×	**Layer for vector-based drawing**
Outline plane	●	×	×	Plane for saving outlines
Color separation line plane	●	×	×	Plane for saving color separation lines
Additional line plane	●	×	×	Plane for drawing lines in raster format
Raster correction layer	●	×	×	**Layer for making corrections (used in drawing check)**
Outline plane	●	×	×	Plane for saving outlines
Color separation line plane	●	×	×	Plane for saving color separation lines
Vector correction layer	●	×	×	**Layer for making corrections (used in drawing check)**
Outline plane	●	×	×	Plane for saving outlines
Color separation line plane	●	×	×	Plane for saving color separation lines
Additional line plane	●	×	×	Plane for drawing lines in raster format

Painting and BG-related layers

Layer/Plane	S	T	P	Description
Mono paint layer	×	●	●	**Layer for painting in black and white**
Outline plane	×	●	●	Plane for protecting outlines
Painting plane	×	●	●	Plane for performing the painting
Raster plane	×	●	●	Plane that can be used for special effects
Gray paint layer	×	●	●	**Layer for painting. Outlines are expressed with grayscale in this layer.**
Outline plane	×	●	●	Plane for protecting outlines (keep the grayscale)
Painting plane	×	●	●	Plane for performing the painting
Raster plane	×	●	●	Plane that can be used for special effects
Vector paint layer	×	●	●	**Layer for vector-based painting**
Outline plane	×	●	●	Plane for protecting outlines
Color separation line plane	×	●	●	Plane for protecting color separation lines
Coloring plane	×	●	●	Plane for performing the painting
Raster plane	×	●	●	Plane that can be used for special effects
Raster general layer	●	●	●	**Layer that can be used for BG and/or special effects**
Raster plane	●	●	●	Plane that can be used for BG and/or special effects
Alpha channel	×	●	●	Channel for specifying transparency

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Non-image related layers

Layer/Plane	S	T	P	Description
Shadow markup layer	●	●	●	**Layer for performing shadow markup**
Border line plane	●	●	●	Equivalent of the outline plane in shadow markup
Shadow markup plane	●	●	●	Equivalent of the painting plane in shadow markup
Direction layer	●	●	●	**Layer where it is possible to enter handwritten directions**
Raster plane	●	●	●	
Direction text layer	●	●	●	**Layer for entering direction-related texts**
Text plane	●	●	●	
Text layer	●	●	●	**Layer for entering texts**
Text plane	●	●	●	
Frame layer	●	●	●	**Layer for saving frames**
Anchor frame plane	●	●	●	Plane for configuring an anchor frame
Shooting frame plane	●	●	●	Plane for configuring a shooting frame
Vanishing point layer	●	●	●	**Layer for showing the vanishing point**
Vanishing point plane	●	●	●	
Selection layer	●	●	●	**Layer for saving a selection**
Selection plane	●	●	●	
Adjustment Layer	×	●	●	**Corrected image converted into layer**
Level adjust plane	×	●	●	Plane for configuring the level adjust
Tone curve plane	×	●	●	Plane for configuring the tone curve
Brightness/Contrast plane	×	●	●	Plane for configuring the brightness and/or contrast

Chapter 8

Painting

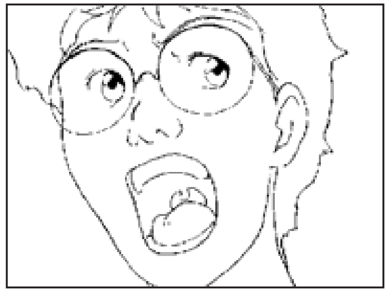
PaintMan HD layer structure

Three types of painting layers

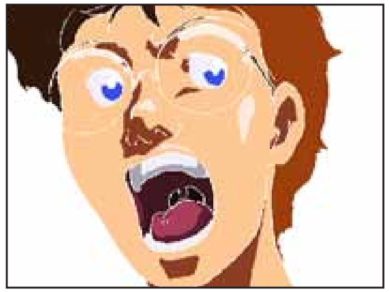
The inbetweens you paint with PaintMan HD are composed of multiple layers and planes. The layers can be classified in three types, each having a slightly different structure: [Mono Paint Layer], [Gray Paint Layer], and [Vector Paint Layer].

Mono paint layer

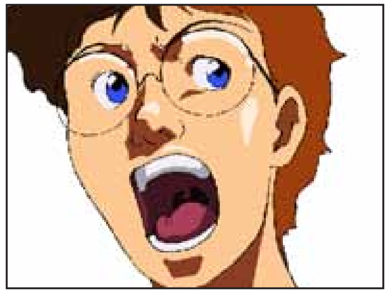
This layer is basically composed of 2 types of planes: the [Outline Plane] and the [Painting Plane].



Outline plane



Painting plane

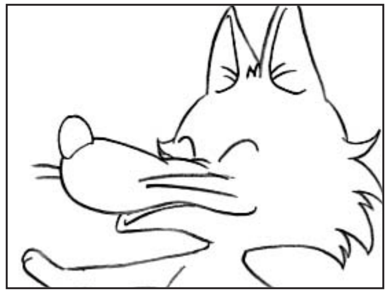


Complete drawing

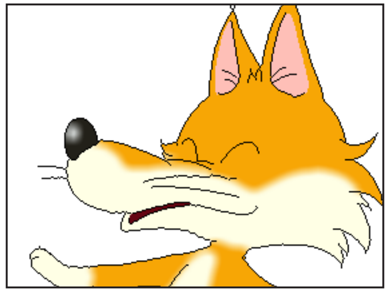
- **[Outline Plane]**
  Stores the outlines of the inbetween.
- **[Painting Plane]**
  Stores the color separation lines and the painted colors.
- **[Raster Plane]**
  Additional plane created for applying airbrush separately, for example.

Gray paint layer

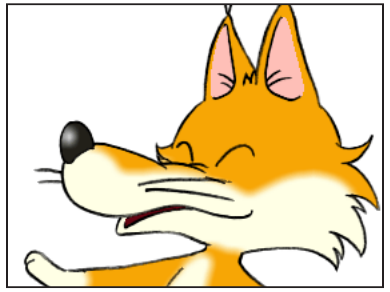
This layer is basically composed of 2 types of planes: the [Outline Plane] and the [Painting Plane].



[Outline Plane] (grayscale)



[Painting Plane] (with border line)



Complete drawing

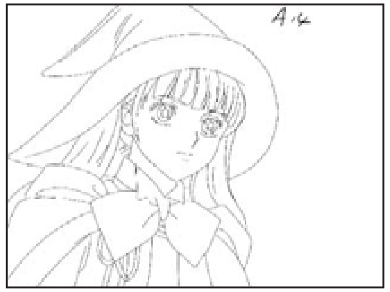
- **[Outline Plane]**
  Stores the outlines of the inbetween in grayscale.
- **[Painting Plane]**
  Stores the color separation lines, the painted colors, and also the detailed border lines for painting.
- **[Raster Plane]**
  Additional plane created for applying airbrush separately, for example.

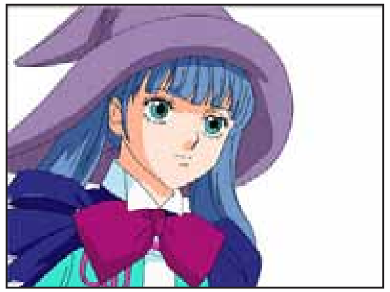
Tips

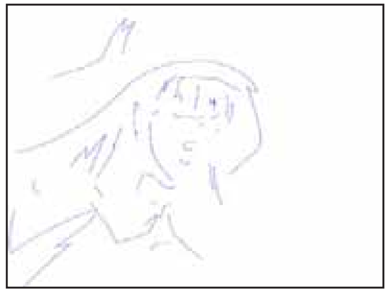
With [Gray Paint Layer], as the gray lines on the [Outline Plane] are lines in intermediate colors, the border lines become hidden in the [Painting Plane].
Due to this reason, with [Gray Paint Layer], paint overflow occurs not when outlines but lines on the [Painting Plane] have gaps.

Vector paint layer

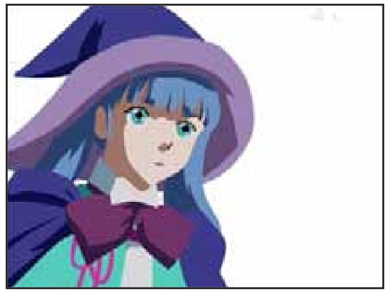
This layer is composed of the [Outline Plane], the [Color Separation Line Plane] where the color separation lines are drawn, and the [Coloring Plane] where you do the painting.


Outline plane


Complete drawing


Color separation line plane 1

Color separation line plane 2


Coloring plane

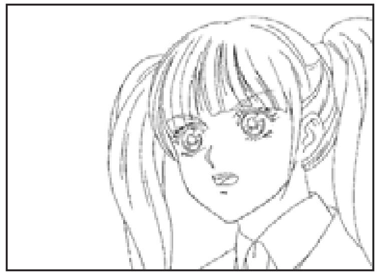
- **[Outline Plane]** Stores the outlines of the inbetween as vector lines.
- **[Color Separation Line Plane]** Stores the color separation lines drawn with vector lines by color.
- **[Coloring Plane]** Stores the painted colors in vector format. This plane is where you do the painting.
- **[Raster Plane]** Additional plane created for applying airbrush separately, for example.

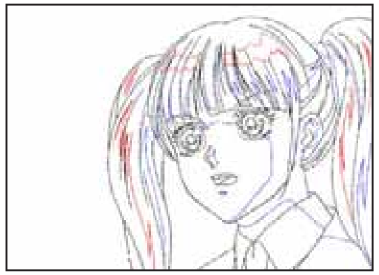
Correcting lines

Switching the edit mode

Before you start painting, you need to clean the inbetween and make it suitable for painting by joining lines that were cut, or clearing the dust that were input as a result of the scan.

To switch planes, click the [Edit Mode Switch] icon on the [Tool Palette]. The active plane toggles between [Painting Plane] and [Outline Plane] (between [Coloring Plane] and [Outline Plane] for vectors).


[Outline Plane] edit mode
(Only the [Outline Plane] is shown. You can correct the outlines.)


[Painting (Coloring) Plane] edit mode
(The [Outline Plane] is also shown but outlines are protected.)

To correct the outlines, switch to the [Outline Plane] of the image shown in the [Cel] window using the [Edit Mode Switch] icon, or the [Layer Palette].

Tips

Layers and planes other than the outline, painting, coloring, and color separation line planes are shown with this icon.

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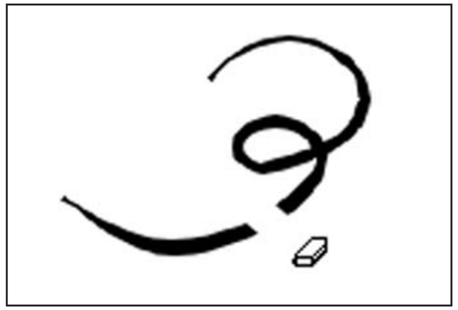
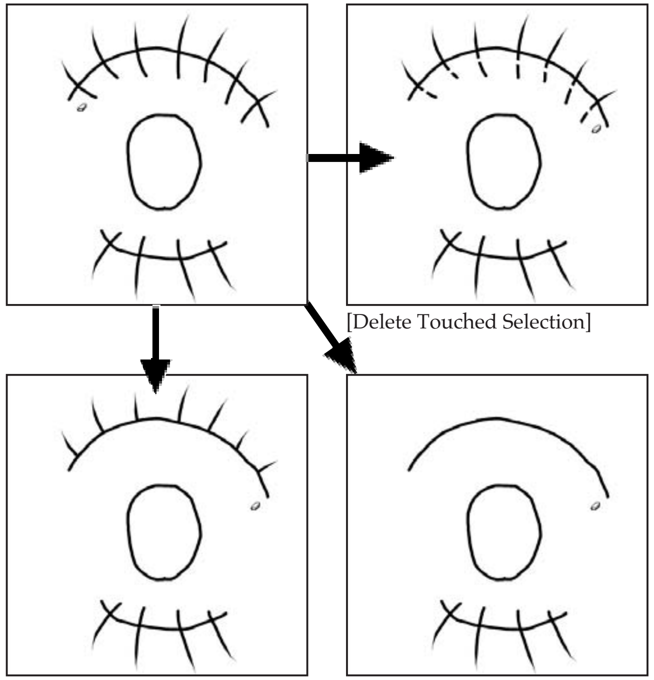
Eraser tool E

Selecting the [Eraser] tool and dragging it allows you to erase a line from the [Cel] window.



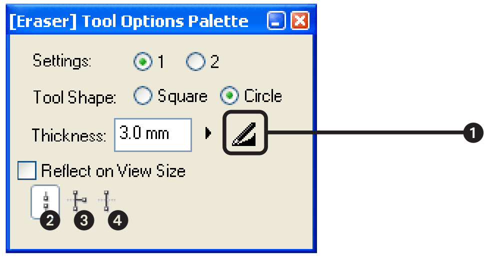


[Delete Touched Selection]

[Delete Until Intersection]

[Delete All]

Eraser tool options palette



[Eraser] Tool Options Palette

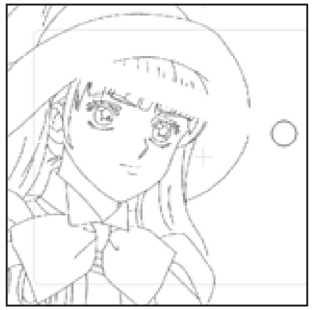
Settings: ● 1 ○ 2

Tool Shape: ○ Square ● Circle

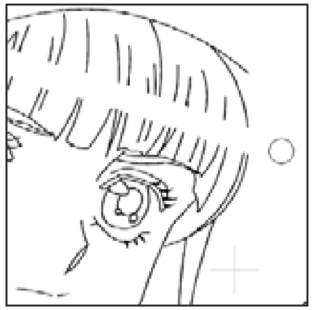
Thickness: 3.0 mm

☐ Reflect on View Size

- **[Settings]**
  Allows you to have 2 eraser tool settings stored and select one using the radio buttons.
- **[Tool Shape]**
  Allows you to change the eraser tool shape using the radio buttons.
- **[Thickness]**
  Allows you to specify the line thickness.
- **[Reflect on View Size]**
  If selected, the eraser size when the screen view is scaled becomes the size when the screen is shown at 100% view.



At full screen mode



At 100% view mode

① **[Reflect Pen Pressure on Thickness]**
Allows you to reflect the pen pressure applied for drawing a line in its thickness. Click to toggle the function on and off.

② **[Delete Touched Selection] (Only vector drawing)**
Deletes only the parts touched with the mouse pointer. This is the normally selected option.

③ **[Delete Until Intersection] (Only vector drawing)**
Deletes the part of a line touched with the mouse pointer up to the intersection with another line.

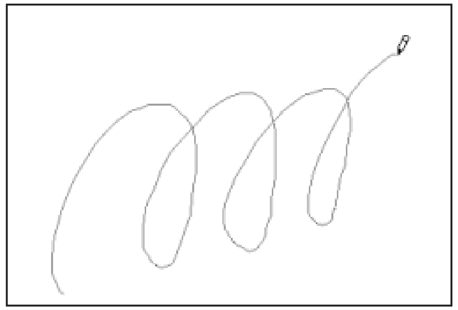
④ **[Delete All] (Only vector drawing)**
Deletes a line touched with the mouse pointer completely.

Tips

- Pressing the [Alt/Opt] key before clicking changes the tool to [Join Line].

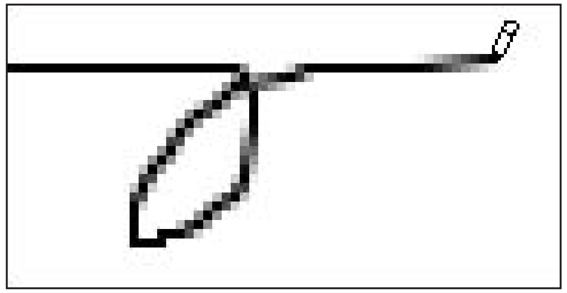
Pencil tool

Allows you to draw with the foreground color by the dot. Click to draw a point and drag to draw a line. This is an ideal tool for making detailed corrections.



With gray lines

In the [Gray Line Layer] edit mode, the [Pencil] tool can draw a pen size anti-aliased line by the dot.

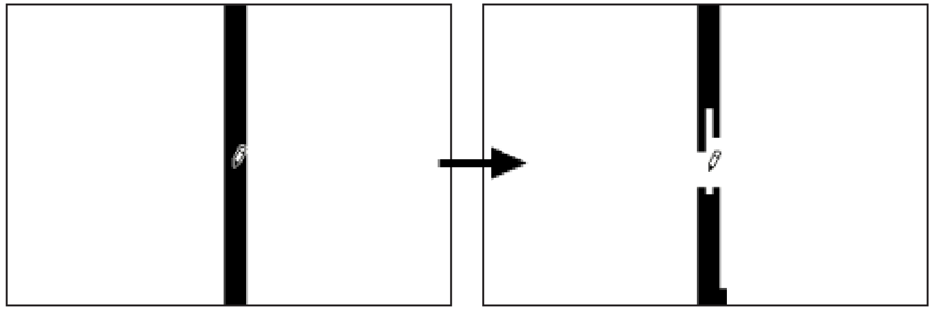


Tips

The [Pencil] tool cannot be used in the [Vector Paint Layer].

Auto-erase function

If you start drawing with the [Pencil] tool along a line already painted in foreground color, the tool erases the line. That is, you can erase without changing to the [Eraser] tool. The function remains enabled until you stop dragging. To turn off this function and add a portion to a line, drag with the [Shift] key held down.



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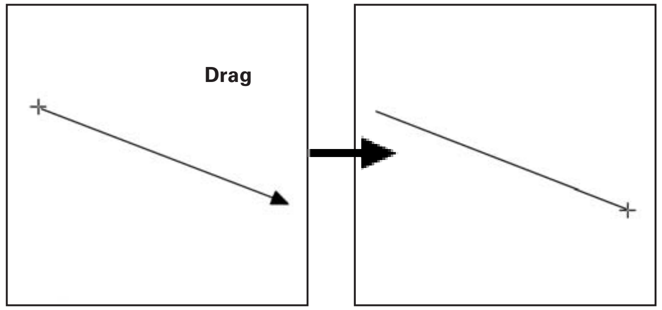
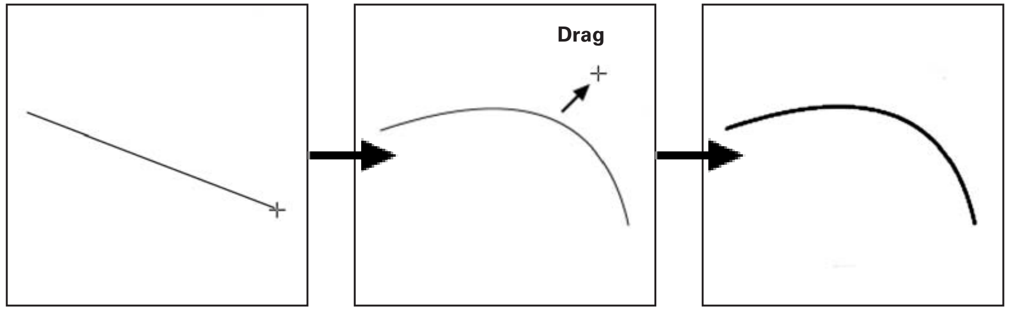
Line tool L

Allows you to draw a straight line from the starting point to the end point by dragging. Releasing the mouse confirms the line.



Curve tool C

Allows you to draw a curve by dragging from the starting point to the end point, and adjusting the straight line. Click to confirm the curve.



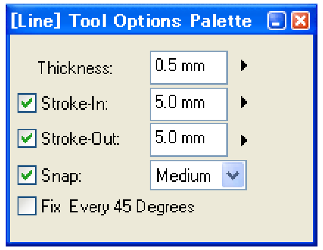
1 Drag from the starting point to the end point.

2 Release the mouse pointer. Adjust the curve using the mouse pointer or the graphics tablet pen.

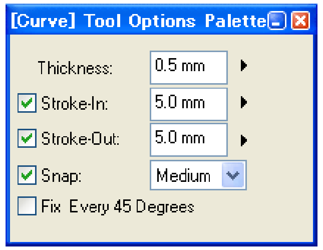
3 Click to confirm the curve.

Line/Curve tool options palette

* Operations are common to both tools.



Thickness: 0.5 mm
☑ Stroke-In: 5.0 mm
☑ Stroke-Out: 5.0 mm
☑ Snap: Medium
☐ Fix Every 45 Degrees



Thickness: 0.5 mm
☑ Stroke-In: 5.0 mm
☑ Stroke-Out: 5.0 mm
☑ Snap: Medium
☐ Fix Every 45 Degrees

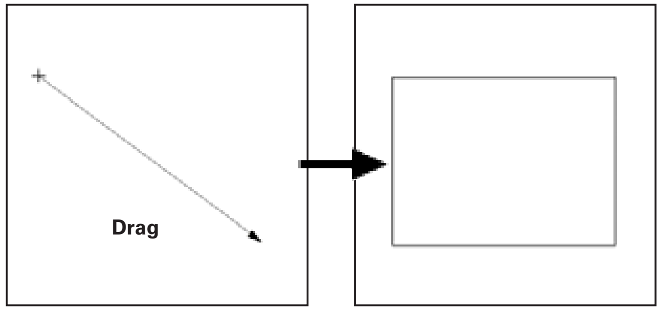
- **[Thickness]**
  Allows you to specify the line thickness.
- **[Stroke-in]**
  Adds a [Stroke-in] to the beginning of a line.
- **[Stroke-out]**
  Adds a [Stroke-out] to the end of a line.
- **[Snap] (Only vector drawing)**
  Allows you to join a line automatically to another by moving the mouse pointer close.
- **[Fix Every 45 Degrees]**
  Fixes the mouse pointer movement angle to 45 degrees.

Tips

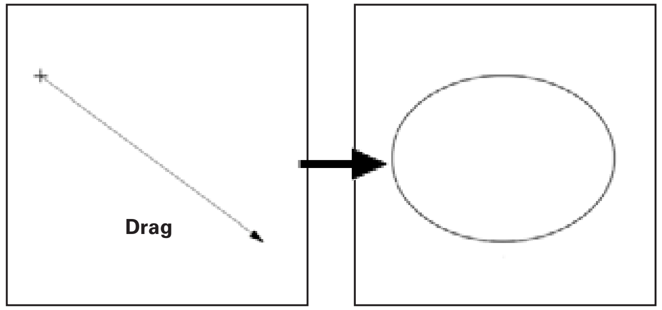
- Pressing the [Alt/Opt] key before clicking changes the tool to [Eyedropper].
- Pressing the [Shift] + [Alt/Opt] keys before clicking allows you to pick a color from the light table with the tool changed to [Eyedropper].
- Pressing the [Shift] key when dragging, fixes the angle to 45 degrees.

Shape tool ☐ N

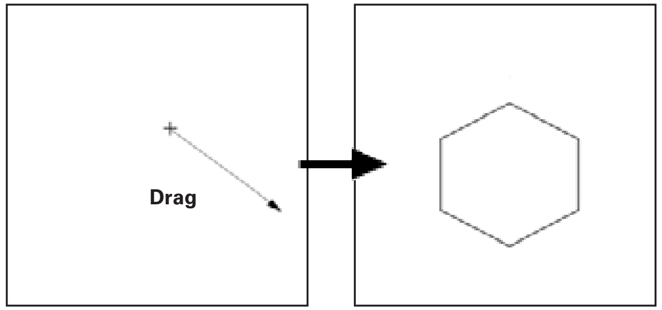
Allows you to draw a rectangle, an ellipse, or a polygon by dragging from the starting point to the end point. Releasing the mouse confirms the shape.



[Rectangle]

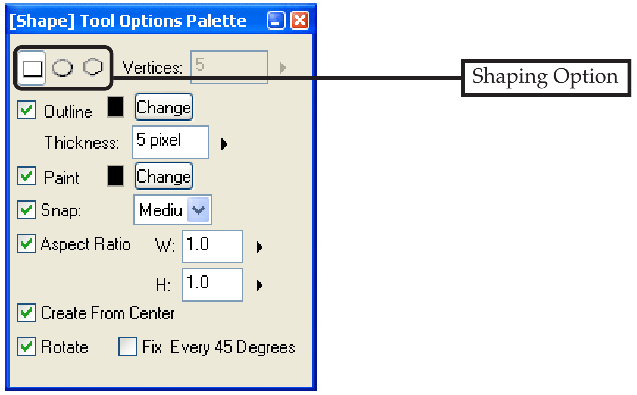


[Ellipse]



[Polygon]

Shape tool options palette



Vertices: 5
☑ Outline ■ Change
Thickness: 5 pixel
☑ Paint ■ Change
☑ Snap: Mediu
☑ Aspect Ratio W: 1.0
H: 1.0
☑ Create From Center
☑ Rotate ☐ Fix Every 45 Degrees

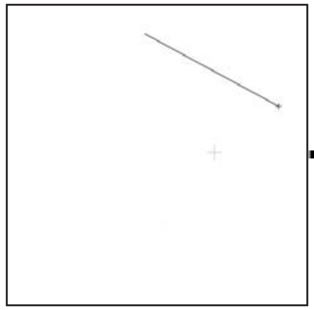
- **Shaping Option**
  Allows you to select the shape to draw from [Rectangle], [Ellipse], and [Polygon]. To select, click the corresponding icon.
- **[Vertices]**
  Allows you to select the number of vertices for the polygon to draw (applicable when [Polygon] is selected as the shape).
- **[Outline]**
  Allows you to configure the outline of the shape to draw.
- **[Change]**
  Allows you to change the color to that specified with the [Foreground Color] button in the [Tool Palette].
- **[Thickness]**
  Allows you to specify the line thickness.
- **[Paint] (Only raster drawing)**
  Paints the shape when drawn.
- **[Change]**
  Allows you to change the color to that specified with the [Foreground Color] button in the [Tool Palette].
- **[Snap] (Only vector drawing)**
  Allows you to join a line automatically to another by moving the mouse pointer close.
- **[Aspect Ratio]**
  Allows you to specify the height to width ratio of the shape to draw.
- **[Create From Center]**
  Draws the shape from the center.
- **[Rotate]**
  Allows you to rotate the shape immediately after drawn. Click after rotating to confirm.
- **[Fix Every 45 Degrees]**
  Selectable only when [Rotate] is selected. Rotates the shape in units of 45 degrees.

Tips

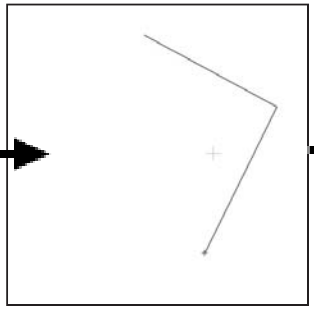
- Pressing the [Alt/Opt] key before clicking changes the tool to [Eyedropper].
- Pressing the [Shift] + [Alt/Opt] keys before clicking allows you to pick a color from the light table with the tool changed to [Eyedropper].
- Pressing the [Shift] key when dragging, fixes the angle to 45 degrees. Pressing the [Shift] key when dragging the shape fixes the aspect ratio.

Polyline tool N

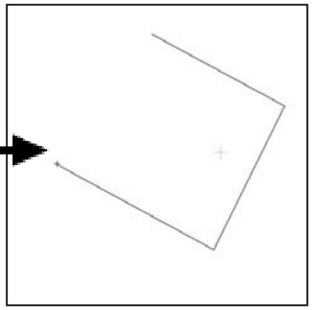
Allows you to draw a polyline by clicking repeatedly while dragging from the starting point to the end point. Double clicking confirms the position of the last vertex and completes the drawing.



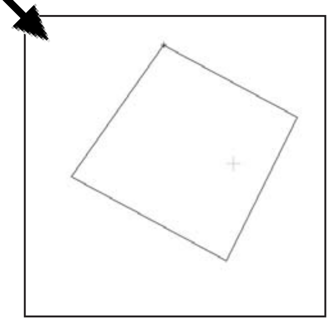
1 Click on the starting point. Clicking at the next point draws a line.



2 Clicking again at a third point makes the line a polyline.

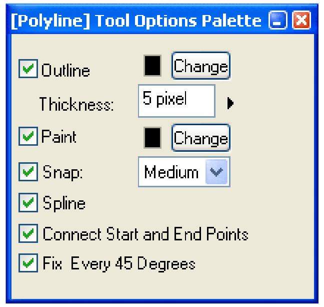


3a Double clicking fixes the shape and completes the drawing.



3b If [Connect Start and End Points] is selected, the polyline becomes a closed shape, with the end point connected to the starting poit.

Polyline tool options palette



[Polyline] Tool Options Palette

☑ Outline ■ Change

Thickness: 5 pixel

☑ Paint ■ Change

☑ Snap: Medium

☑ Spline

☑ Connect Start and End Points

☑ Fix Every 45 Degrees

- **[Outline]**
  Allows you to configure the outline of the polyline to draw.
- **[Change]**
  Allows you to change the color to that specified with the [Foreground Color] button in the [Tool Palette].
- **[Thickness]**
  Allows you to specify the line thickness.
- **[Paint] (Only raster drawing)**
  Paints the closed area formed by the polyline.
- **[Change]**
  Allows you to change the color to that specified with the [Foreground Color] button in the [Tool Palette].
- **[Snap] (Only vector drawing)**
  Allows you to join a line automatically to another by moving the mouse pointer close.
- **[Spline]**
  Allows you to connect a point selected by clicking with the next using a Bezier curve.
- **[Connect Start and End Points]**
  Allows you to connect the end point with the starting point by double clicking on the last point.
- **[Fix Every 45 Degrees]**
  Fixes the mouse pointer movement angle to 45 degrees.

Tips

- Pressing the [Shift] key when drawing the polyline, fixes the angles to 45 degrees.

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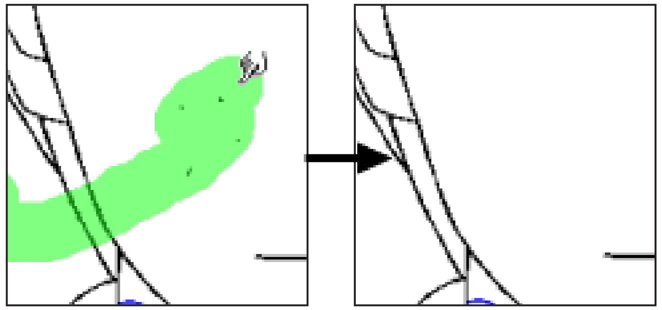
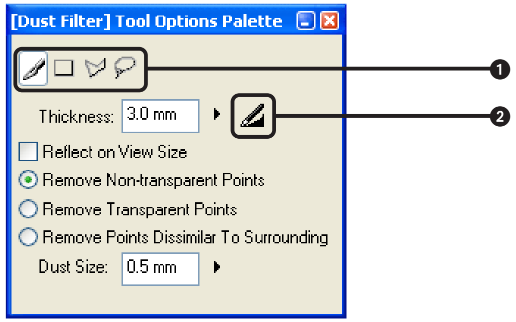
Dust Filter tool N

This tool allows you to remove all dusts smaller than a size specified in the tool options palette from an image area whose shape is also specified there in one operation.



Dust Filter tool options palette



Thickness: 3.0 mm
☐ Reflect on View Size
● Remove Non-transparent Points
○ Remove Transparent Points
○ Remove Points Dissimilar To Surrounding
Dust Size: 0.5 mm

❶ **Selection Option**

Allows you to select the tool for selecting an area from [Pen], [Rectangle], [Polyline], and [Lasso]. To select, click the corresponding icon.

- **[Thickness]**

  Allows you to specify the thickness for the pen-shaped mouse pointer using numeric entry or slider.

❷ **[Reflect Pen Pressure on Thickness]**

Reflects the pen pressure applied when drawing with the pen on the graphics tablet on the line thickness.

- **[Reflect on View Size]**

  If selected, the eraser size when the screen view is scaled becomes the size when the screen is shown at 100% view.
- **[Remove Non-transparent Points]**

  Fills all points in a color different to that of the background (pure white with RGB at 255, 255,255) with the background color.
- **[Remove Transparent Points]**

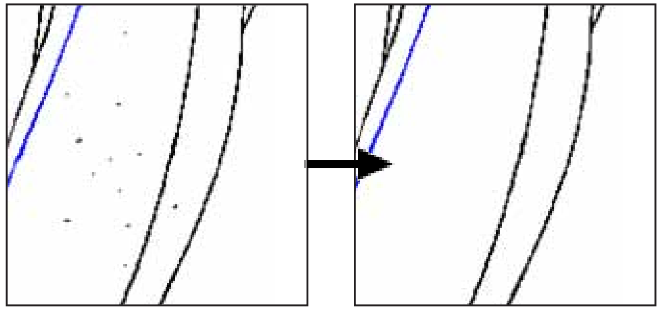
  Fills all dusts in background color (pure white with RGB at 255,255,255) with the surrounding color.
- **[Remove Points Dissimilar To Surrounding]**

  Fills dusts in a color different to that of the surrounding with the surrounding color.
- **[Dust Size]**

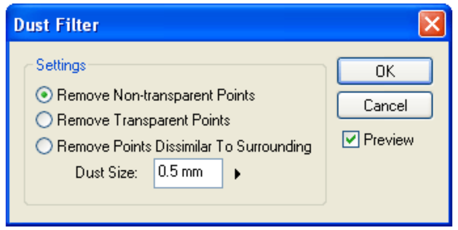
  Allows you to specify the maximum size of the dusts to remove.

Dust Filter (Filter) [Filter] → [Dust Filter...]

Allows you to remove all dusts smaller than a size specified in the dialog box.



Dust Filter dialog box



Settings
● Remove Non-transparent Points
○ Remove Transparent Points
○ Remove Points Dissimilar To Surrounding
Dust Size: 0.5 mm
☑ Preview

[Settings]

- **[Remove Non-transparent Points]**

  Fills all points in a color different to that of the background (pure white with RGB at 255, 255,255) with the background color.
- **[Remove Transparent Points]**

  Fills all dusts in background color (pure white with RGB at 255,255,255) with the surrounding color.
- **[Remove Points Dissimilar To Surrounding]**

  Fills dusts in a color different to that of the surrounding with the surrounding color.
- **[Dust Size]**

  Allows you to specify the maximum size of the dusts to remove.
- **[Preview]**

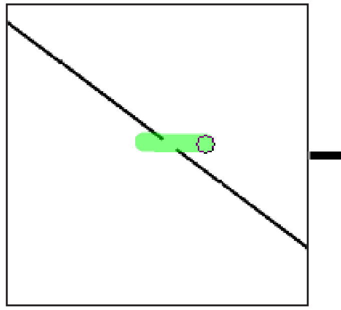
  Allows you to preview the results.

Tips

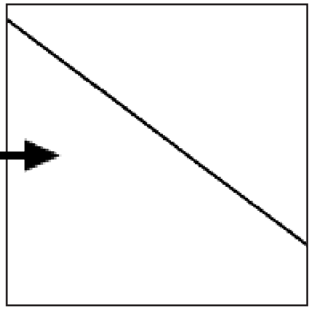
- Advantages of the [Dust Filter] command under the [Filter] menu (when compared to the [Dust Filter] tool that can remove dust quickly from a specific area) are that you can remove dusts from the entire image at once and that you can check the result with [Preview].
- If the size specified in [Dust Size] is too large, you may risk the removal of necessary lines.
- [Dust Filter] functions cannot be used in the [Vector Paint Layer].

Join Line tool [J]

Allows you to draw perfectly closed areas by filling gaps between lines for painting.



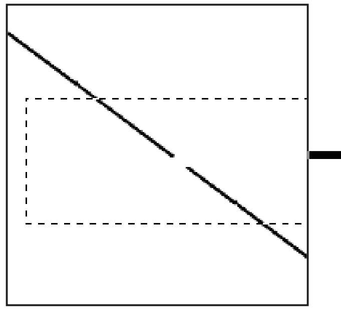
1 Connect the points you want to join using the mouse pointer.



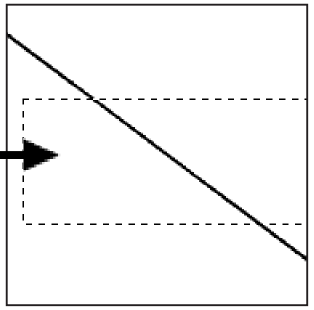
2 Release the mouse. The lines become "join the lines".

Join Line [Edit] → [Repair Line] → [Join Line]

Allows you to "join the lines" within a selection.

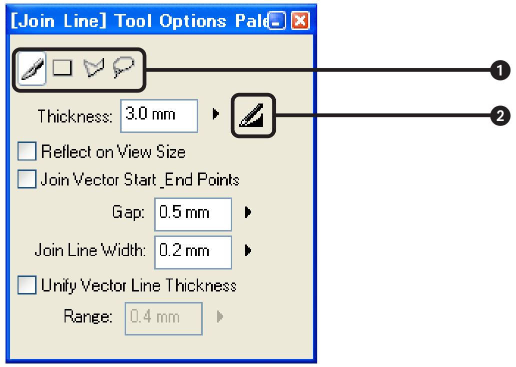


1 Select the area where the lines you want to join are drawn using the [Selection] tool.



2 Select [Repair Line] → [Join Line] from the [Edit] menu to "join the lines".

Join Line tool options palette



[Join Line] Tool Options Pale

Thickness: 3.0 mm

☐ Reflect on View Size

☐ Join Vector Start_End Points

Gap: 0.5 mm

Join Line Width: 0.2 mm

☐ Unify Vector Line Thickness

Range: 0.4 mm

❶ **Selection Option**

Allows you to select the method for specifying the target area (selection) from [Pen], [Rectangle], [Polyline], and [Lasso]. For [Pen], the selection is the area filled using the tool while for [Rectangle], [Polyline], and [Lasso] is the area enclosed by the shape drawn with the tool.

- **[Thickness]**

  Allows you to specify the thickness of the line for the [Pen] tool.

❷ **[Reflect Pen Pressure on Thickness]**

Allows you to reflect the pen pressure applied for drawing a line in the thickness of the line for the [Pen] tool. Click to toggle the function on and off.

- **[Reflect on View Size]**

  If selected when [Pen] is selected as the Selection Option, the pen size when the screen view is scaled becomes the size when the screen is shown at 100% view.
- **[Join Vector Endpoints] (Only for vector drawing with STYLOS)**

  If there are two or more endpoints, moves the endpoints to an intermediate position. If there is only one endpoint, extends the line up to another in the vicinity.
- **[Gap]**

  Join Line is executed on gaps smaller than the size specified here.
- **[Join Line Width]**

  Allows you to specify the width of the line for connecting raster lines.
- **[Unify Vector Line Thickness] (Only for vector drawing with STYLOS)**

  If selected when joining vector lines, the thickness of whole line is unified.
- **[Range] (Only for vector drawing with STYLOS)**

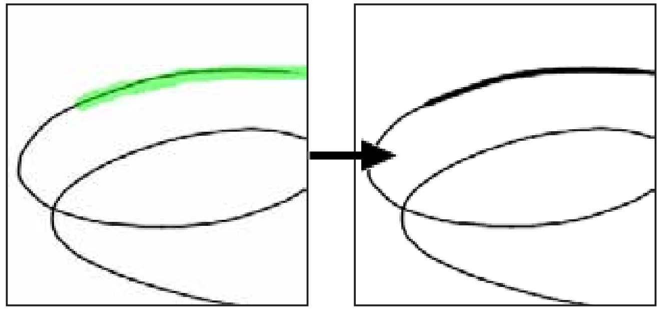
  Joins the lines extending the thicker one and at the specified distance from each endpoint (distance specified with [Range]).

Tips

- Pressing the [Alt/Opt] key before clicking changes the tool to [Eyedropper].
- Pressing the [Shift] + [Alt/Opt] keys before clicking allows you to pick a color from the light table with the tool changed to [Eyedropper].
- Pressing the [Space] key before clicking changes the tool to [Pencil].
- Pressing the [Shift] + [Space] keys before clicking changes the tool to [Pencil] with the auto-erase function turned off.

Width Change tool J

Allows you to thicken or thin the width of a line.

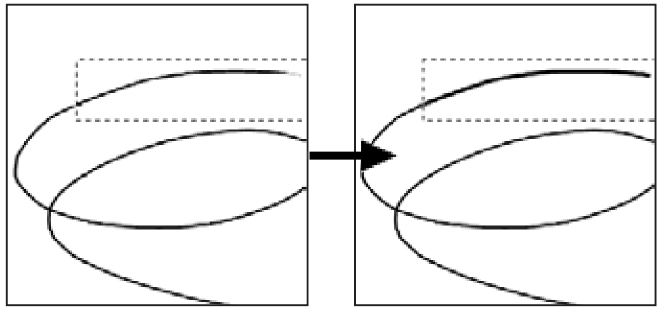


1 Select the part of the line you want to change the width with the mouse pointer.

2 Release the mouse. The line width is changed.
Example: [Thickening]

Change Width [Edit] → [Repair Line] → [Change Width]

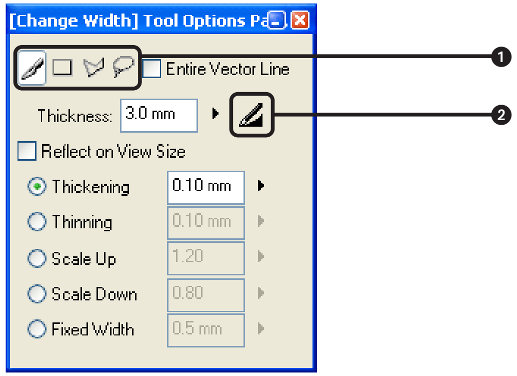
Allows you to [Change Width] within a selection.



1 Select the area where you want to change the line width using the [Selection] tool.

2 Select [Repair Line] → [Change Width] from the [Edit] menu to "change the width" of the line.
Example: [Fixed Width]

Change Width tool options palette



[Change Width] Tool Options Pa

☐ Entire Vector Line

Thickness: 3.0 mm

☐ Reflect on View Size

● Thickening 0.10 mm

○ Thinning 0.10 mm

○ Scale Up 1.20

○ Scale Down 0.80

○ Fixed Width 0.5 mm

❶ **Selection Option**

Allows you to select the method for specifying the target area (selection) from [Pen], [Rectangle], [Polyline], and [Lasso]. For [Pen], the selection is the area filled using the tool while for [Rectangle], [Polyline], and [Lasso] is the area enclosed by the shape drawn with the tool.

- **[Entire Vector Line] (Only vector drawing)**
  Applies [Chanqe Width] to the whole extension of the line touched using the Selection Option.
- **[Thickness]**
  Allows you to specify the thickness of the line for the [Pen] tool.

❷ **[Reflect Pen Pressure on Thickness]**

Allows you to reflect the pen pressure applied for drawing a line in the thickness of the line for the [Pen] tool. Click to toggle the function on and off.

- **[Reflect on View Size]**
  If selected when [Pen] is selected as the Selection Option, the pen size when the screen view is zoomed in becomes the size when the screen is shown at 100% view.
- **[Thickening]**
  Thickens the line by the unit specified here.
- **[Thinning]**
  Thins the line by the unit specified here.
- **[Scale Up] (Only vector drawing)**
  Thickens the line by the percentage specified here.
- **[Scale Down] (Only vector drawing)**
  Thins the line by the percentage specified here.
- **[Fixed Width] (Only vector drawing)**
  Unifies the line width to the value specified here.

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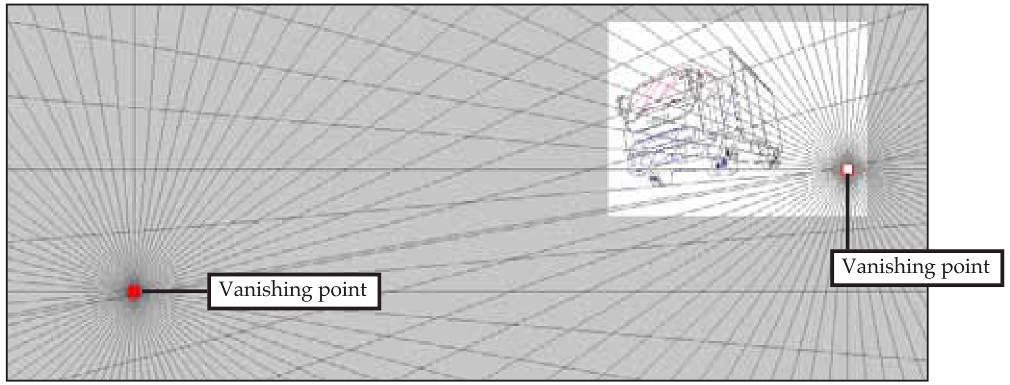
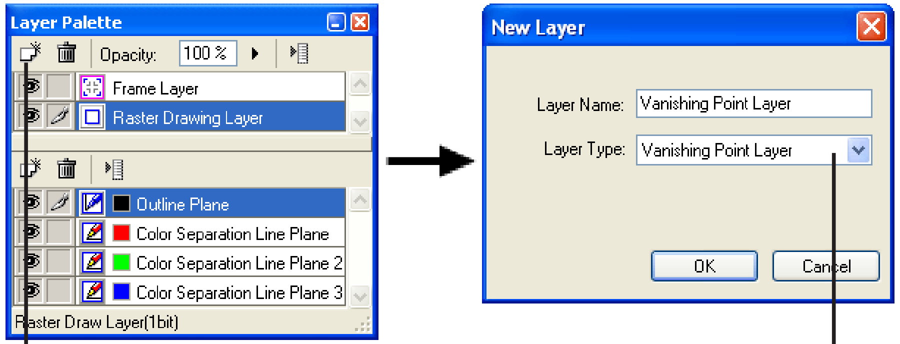
Vanishing point layer

Allows you specify a [Vanishing Point] and have auxiliary lines shown on the screen for helping you to draw with perspective.


Vanishing point
Vanishing point

1. Create a vanishing point layer.

Open the [Layer Palette] by selecting [Layer Palette] from the [Window] menu or using the [F5] key.


Layer Palette
Opacity:
100 %
Frame Layer
Raster Drawing Layer
Outline Plane
Color Separation Line Plane
Color Separation Line Plane 2
Color Separation Line Plane 3
Raster Draw Layer(1bit)
New Layer
OK
Cancel

Layer Name: Vanishing Point Layer

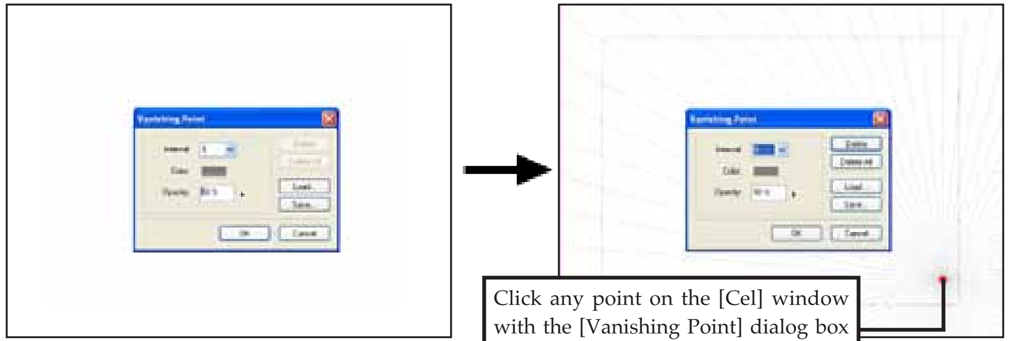
Layer Type: Vanishing Point Layer

❶ Click the [New Layer] button and open the [New Layer] dialog box.

❷ Select [Vanishing Point Layer] and click [OK]. The [Vanishing Point] dialog box appears.

2. Create a vanishing point.

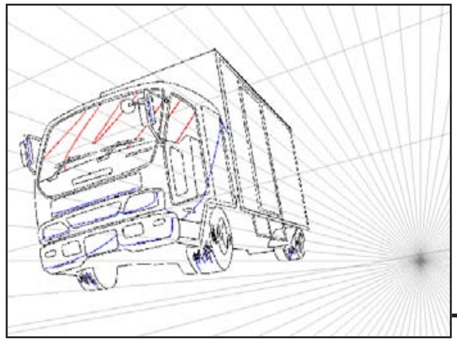
In the [Vanishing Point] dialog box, specify the [Interval], [Color], and [Opacity] for the auxiliary lines to show.



Click any point on the [Cel] window with the [Vanishing Point] dialog box open and create the [Vanishing Point].

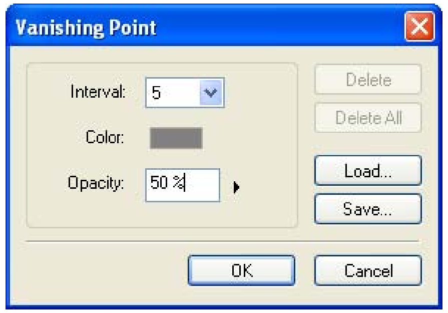
3. Confirm the vanishing point.

Click [OK] in the [Vanishing Point] dialog box to confirm the [Vanishing Point]. You can now draw in the [Cel] window by referencing the auxiliary lines.



Example of drawing using [Vanishing Point].

Vanishing Point dialog box

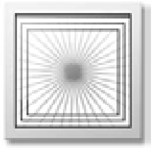


Interval: 5

Color:

Opacity: 50 %

- **[Interval]**
  Select an angle for the auxiliary lines from 1, 5, 10, 15, and 30 degrees.
- **[Color]**
  Shows the auxiliary line color. Click the [Color] button to open the [Color Settings] panel (Windows) or the [Color] dialog box (Mac OS). Selecting a color there changes the line color.
- **[Opacity]**
  Select a darkness for the auxiliary lines.
- **[Delete]**
  Deletes the selected [Vanishing Point].
- **[Delete All]**
  Deletes all [Vanishing Points] in the [Cel] window.
- **[Load...]**
  Loads a saved **[Vanishing Point Settings file] (extension: vpf)**.
- **[Save...]**
  Saves the information of the created [Vanishing Point] as a **[Vanishing Point Settings file] (extension: vpf)**.
- **[OK]**
  Confirms the settings and closes the dialog box.
- **[Cancel]**
  Cancels the settings and closes the dialog box.



[Vanishing Point Settings file]

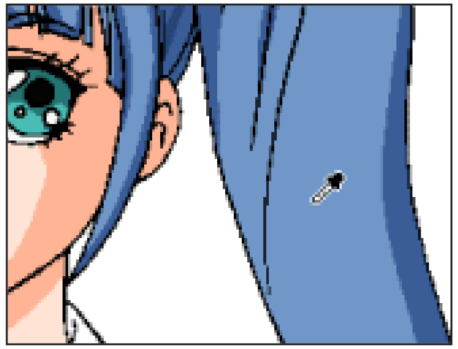
Tips

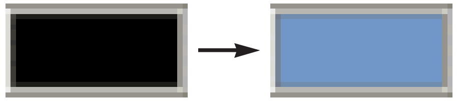
- Operations involving vanishing points are possible only when the dialog box is visible. To move a [Vanishing Point], put the mouse pointer in the center of the [Vanishing Point] and drag.
- The [Vanishing Point] may be located out-of-the cel. You may have multiple [Vanishing Points].
- To perform operations involving [Vanishing Point] again, re-open the [Vanishing Point] dialog box by double clicking [Vanishing Point Plane] in the [Layer Palette].

Preparing the colors

Eyedropper tool S

This is a tool for specifying the foreground color as the color of the clicked area.

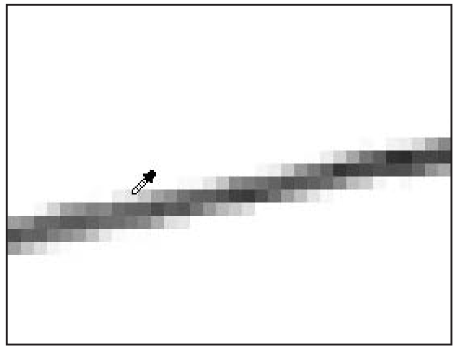


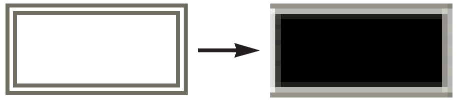


The color shown in the [Foreground Color] button at the lower part of the tool palette is replaced with the picked color which becomes the foreground color.

With gray lines

On an outline on the [Gray Paint Layer], the eyedropper picks the reference color of the gray line but not the halftone pixels present on the line. Be careful.



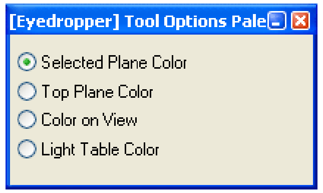


If you pick a gray from a gray line drawn with black, the selected foreground color will be black, not gray.

Tips

- You can switch the drawing tool with which you are working to the [Eyedropper] tool by pressing the [Alt/Opt] key. (The [Eyedropper] tool is enabled during the time you have the [Alt/Opt] key held down)
- Right clicking changes the tool to [Eyedropper] even if the selected tool is another. The color is picked when you right click.

Eyedropper tool options palette



[Eyedropper] Tool Options Pale

● Selected Plane Color
○ Top Plane Color
○ Color on View
○ Light Table Color

- **[Selected Plane Color]**
  Picks the color from the active plane.
- **[Top Plane Color]**
  Picks the color from the plane listed first in the layer palette from among the non-transparent ones.
- **[Color on View]**
  Picks the color shown on the screen, irrespective of the layer.
- **[Light Table Color]**
  Picks the color from the image that is at the top of the light table.

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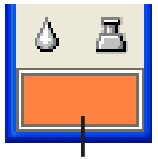
Selecting a color

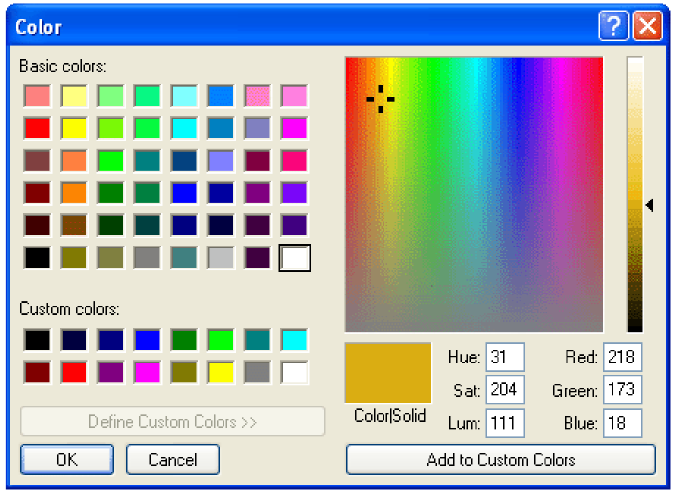
With RETAS!PRO, the color used for painting with the [Fill] tool, for example, is the "foreground color" you specified in advance using any of the several methods available.

For confirming the current foreground color, see the lower part of the tool palette or the [Foreground Color] button at the lower left of the [Color Palette].



[Foreground Color] button on the tool palette

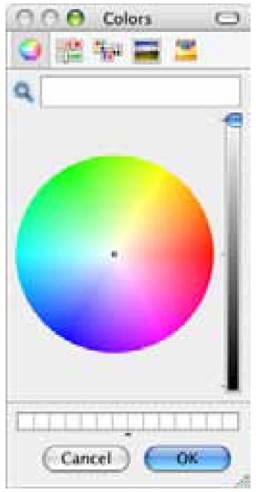
Color dialog box (Windows)



Hue: 31 Sat: 204 Lum: 111

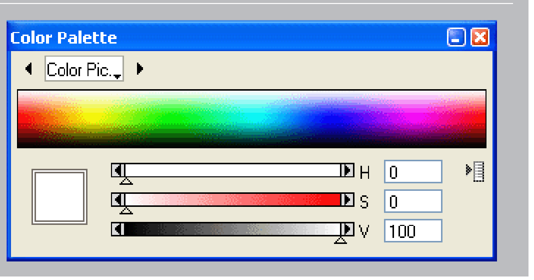
Red: 218 Green: 173 Blue: 18

Color dialog box (Mac OS)



Tips

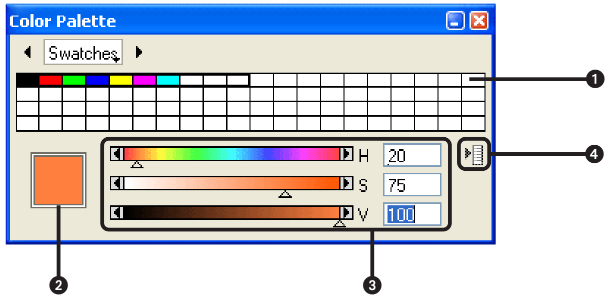
When creating a color, you can use either the conventional 24 bits full-color (the 0-255, 8 bits per RGB channel color) or the 48-bit color (the 0-65535, 16 bits per RBG channel color).
That is, you can paint using 48-bit colors.



H 0 S 0 V 100

Color Palette F7

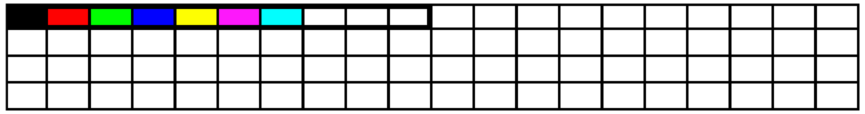
[Color Palette] is the basic palette for creating and selecting a foreground color. You can open it from the [Window] menu.
Allows you to select the color model you want to work with (RGB or HSV).



H 20 S 75 V 100

❶ Color box

Registers or selects a color.

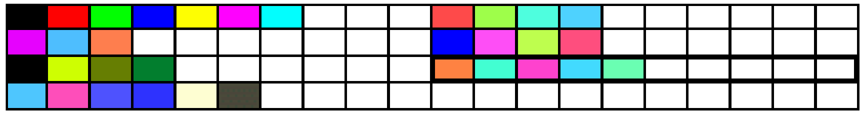


On the color box, the mouse pointer changes to [Eyedropper] tool.
Clicking specifies the color of the box color as the foreground color.

If you hold down the [Alt/Opt] key, the mouse pointer changes to a bucket. Clicking on the color box with the bucket, registers the current foreground color to the color box.

To select a foreground color within the color box bordered with a black frame, use the [1] to [0] numeric keys that corresponds to each of the color boxes, from left to right.

Pressing the [Tab] key moves the black frame, that is, switches the color box.



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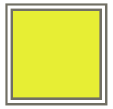
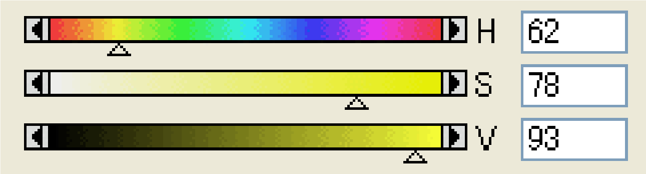
❷ [Foreground Color] button

Shows the currently selected "foreground color". Clicking this buttons shows a dialog box that allows you to specify the foreground color.



❸ Color slider

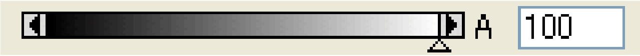
Allows you to edit a color by changing the RGB/HSV value using the slider.
The color can also be edited using direct input.


H 62
S 78
V 93

[R] Red component
[G] Green component
[B] Blue component

[H] Hue
[S] Saturation
[V] Value

Selecting the [Use Alpha] check box in the palette menu enables the transparency settings (alpha channel) for the color.

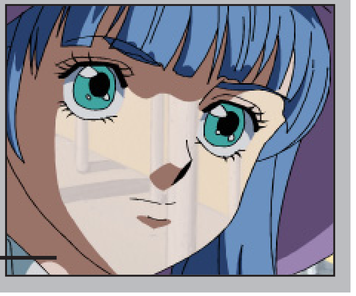

A 100

[A] Transparency

Tips

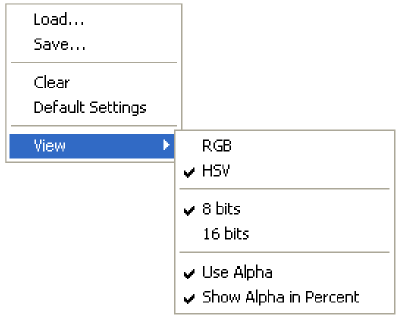
When creating colors, it is possible to create transparent colors by manipulating A (alpha channel) in addition to RGB and HSV values.

Semi-transparent painting can be completed in the painting process instead of adding shadow to a character fallen on the ground during the shooting, for example.



Inbetween with the BG shown transparently through the image by manipulating the alpha channel (transparency)

❹ Palette menu



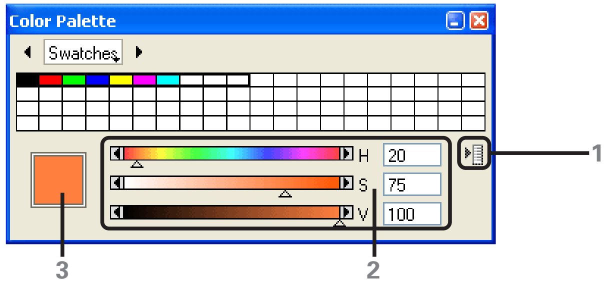
- **[Load...]**
  Loads a previously saved **[Color Palette Settings File] (extension: scs)**.
  If the current color palette has been changed, a dialog box appears to confirm whether you want to save the changes or not.
- **[Save...]**
  Names and saves the current color palette in the disk as a **[Color Palette Settings File] (extension: scs)**.
- **[Clear]**
  Clears the colors registered in the color palette.
  All color boxes will be reset to white. If the current color palette has been changed, a dialog box appears to confirm whether you want to save the changes or not.
- **[Default Settings]**
  Initializes all of the color palette pages.

- **[View]**

- **[RGB] [HSV]**
  Allows you to select whether to use the three primary colors in light or the three components of the color.
- **[8 bits] [16 bits]**
  Allows you to switch the number of bits for each RGB of the RGB color space between 8 and 16.
- **[Use Alpha]**
  Makes the 4th slider to appear. This is the slider that will allow you to specify the transparency for a color.
- **[Show Alpha in Percent]**
  Show the transparency of the color in a 0 to 100% range.
  If the check box is not selected, transparency is shown as a numeric range of 0 to 65535 (for 16 bits).

Creating colors with the color palette

The procedure for creating foreground colors using the [Color Palette] is as follows.



H 20

S 75

V 100

1. Configure the palette.

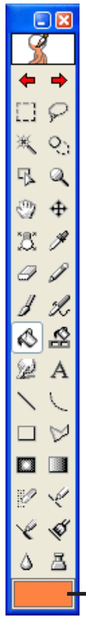
Select the color model (RGB or HSV) and the number of channels (8 bits or 16 bits) you want to use from the palette menu.

2. Define the color.

Define the color to create by moving the color slider and/or entering numeric values.

3. Completion

The [Foreground Color] button becomes the current foreground color. Use any drawing tool to paint with the defined color.



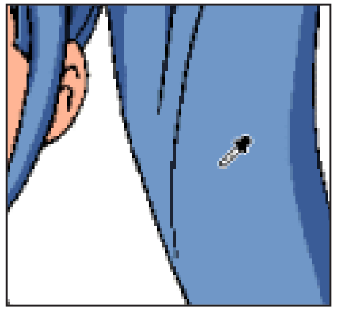
The color is also shown on [Foreground Color] button on the [Tool Palette].

Registering a color to the color palette

The procedure for registering a color selected from a model image to the [Color Palette] is as follows.

1. Pick the color.

Pick the color from the image using the [Eyedropper] tool.

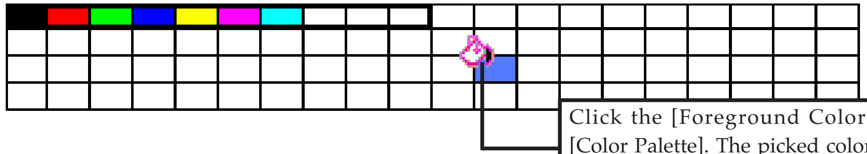


2. Completion

The [Foreground Color] button on the [Tool Palette] becomes the picked color.

3. Changing Eyedropper to Fill

Place the mouse pointer on the [Color Palette] color box with the color you want to use and press the [Alt/Opt] key. The tool becomes [Fill] tool which remains enabled during the time you have the [Alt/Opt] key held down.



Click the [Foreground Color] box on the [Color Palette]. The picked color is registered to the color box.

4. Saving the color palette

You can save a [Color Palette] you have customized in a **[Color Palette Settings File] (extension: scs)** then load using the palette menu.

[Color Palette Settings File]

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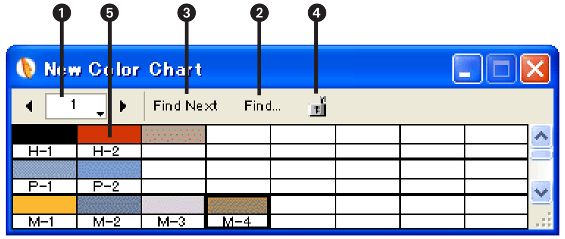
Color Chart

This is a function for managing the colors to be used in painting by name and have them arranged in a table.



❶ **Chart Page**
Shows the current page number.
You can have up to 10 pages. To jump among the pages, click the left or right arrow.

❷ **[Find...] button**
Allows you to search for a color within the Color Chart by name.

❸ **[Find Next] button**
Click to search for the next candidate.

❹ **Lock button**
Locks the Color Chart to prevent the content from being changed by mistake.
Clicking the button toggles between Unlock 🔓 and Lock 🔒.

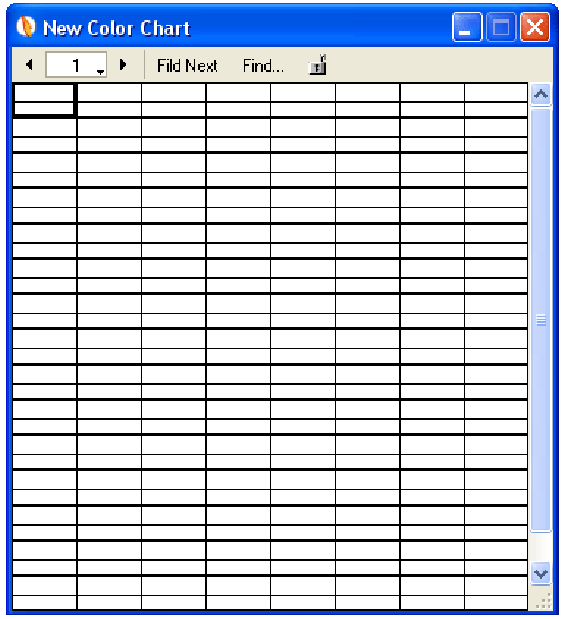
❺ **Color box**
Shows the registered colors with their respective names.
On a color box, the mouse pointer changes to [Eyedropper] tool which if clicked specifies the color of that box as the foreground color.

If the [Alt/Opt] key is pressed when placing the mouse pointer on a color box, the mouse pointer changes to a bucket shaped [Fill] tool.
which if clicked registers the foreground color to the color box.

Creating a color chart

1. Create a new color chart.

To create a new [Color Chart], select [New] → [Color Chart] from the [File] menu.



2. Get a color.

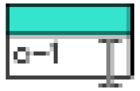
Select [Eyedropper] tool from the tool palette and pick a color by clicking on the image.

3. Register the color ([Alt/Opt] key)

The [Eyedropper] becomes [Fill] tool when placed on a [Color Chart] color box with the [Alt/Opt] key pressed.
To fill the [Color Chart] color box with the colors you picked, click with [Alt/Opt] key held down.

4. Enter the color name.

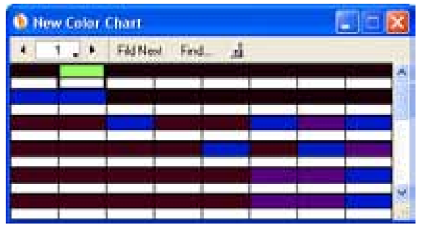
Double click the color box. You can enter a name of up to 5 single-byte characters.



Creating a color chart from colors

You can create a new [Color Chart] by picking all the colors included in an image by selecting [Color] → [Create Color Chart From Cel] from the [File] menu.

Be careful on where you will use this method as the function will consider colors as different even when the difference in their data is minimal. In other words, if the model image has gradient applied on it, you will fill the whole color chart with similar colors.



Example of failure

Saving a color chart

The colors registered in a [Color Chart] can be saved in a **[Color Chart Settings File] (extension: rcc)**. You may save it as a new file by selecting [Save As...] or overwrite an open file by selecting [Save] from the [File] menu.

[Color Chart Settings File]

Tips

For a [Color Chart Settings File] to be loadable to RETAS!PRO Ver. 5, you must save it to Ver. 5 format (extension: ccf) by selecting [File] → [Save As...].

Loading a color chart and specifying the foreground color

1. Select the command.

Select [Open] → [Color Chart] from the [File] menu and open the [Color Chart] file with the color styling.

2. Get the foreground color.

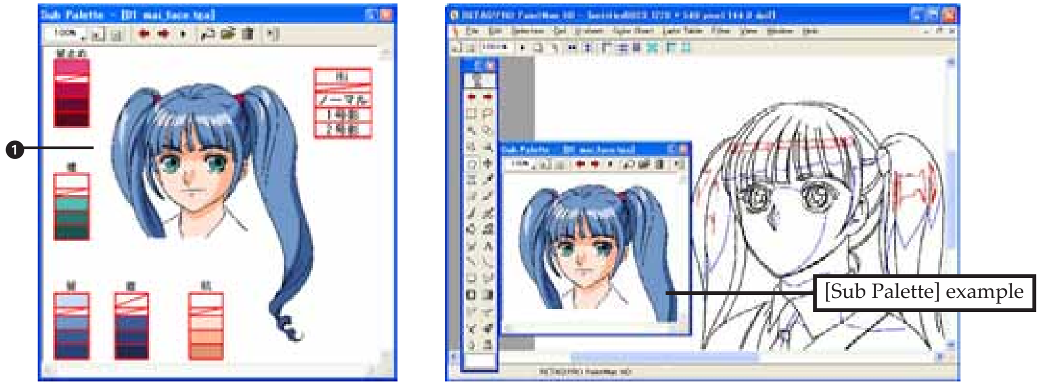
On the [Color Chart], the mouse pointer changes automatically to [Eyedropper] tool. Click to specify a color as the foreground color.

Tips

[Color Chart] is not a palette but a window. As a result, you can cut and paste [Color Charts] as well as add special effect filters such as [Tone Curve].

Sub Palette F9

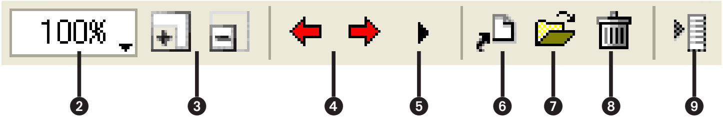
[Sub Palette] is a palette for viewing and picking colors from an already painted image (color model).



❶ Reference Area
Shows a loaded image. In the reference area, the mouse pointer changes to [Eyedropper] tool which if clicked specifies the color of that point as the foreground color. The [Eyedropper] tool changes to [Hand] tool during the time the [Ctrl/Cmd] key is held down, allowing you to scroll the image.

Sub palette tool bar

Shows the icons of the available functions.



❷ [View Scale Switch] menu
Adjusts the scale of the reference area.

❸ [Zoom In] button, [Zoom Out] button
Enlarges or reduces the reference area at every click, respectively.

❹ [Previous Cel] button, [Next Cel] button
Switches the image to that of the previous or next cel in the same folder.

❺ [Cel List] button
Shows all of the images in the same folder as a list. Selecting an image in the list switches the view to that image.

❻ [Load Current Images] button
Loads the images currently shown in the [Cel] window to the [Sub Palette]. This allows you to make the first painted cel a model for painting the subsequent [Cels]. As with the [File Previewer], all of the inbetweens in the same folder are also loaded.

⑦ [Load...] button

Loads the specified image to the [Sub Palette]. As with the [File Previewer], all of the inbetweens in the same folder are also loaded.

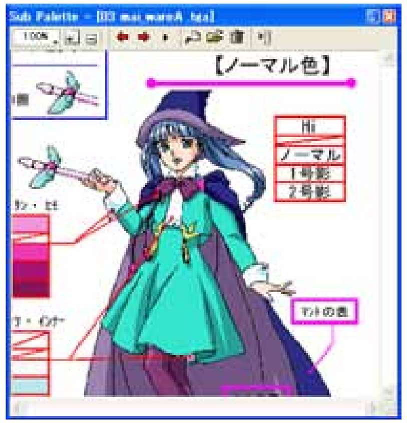
⑧ [Clear]

Clears the image on the [Sub Palette].

⑨ [Show Menu]

- **[Load Previous Image Automatically]**
  Loads automatically the image of the inbetween whose number is the previous one to the [Sub Palette] when the inbetween in the [Cel] window is switched with the [File Previewer], for example.
- **[Synchronous Image Window and Scroll]**
  Moves the image on the [Sub Palette] in synchronization with the image in the [Cel] window.
- **[Load Acquired Color to Color Palette]**
  Registers automatically the colors picked from the [Sub Palette] using the [Eyedropper] tool to the [Color Palette] color boxes in order, starting from the lower left color box.

Color styling using the sub palette



1. Open the Sub Palette.

Open the [Sub Palette] by selecting [Sub Palette] from the [Window] menu under the menu bar, or by pressing the [F9] key.

2. Load the color model.

Load the image to be used as color model to the [Sub Palette]. Click [Load...] and select the image file with color styling from the [Open] dialog box that appears. You can also load by using drag and drop from the file browser.

3. Select a drawing tool.

Select [Fill] tool, for example, by clicking the icon on the [Tool Palette].

4. Get the foreground color.

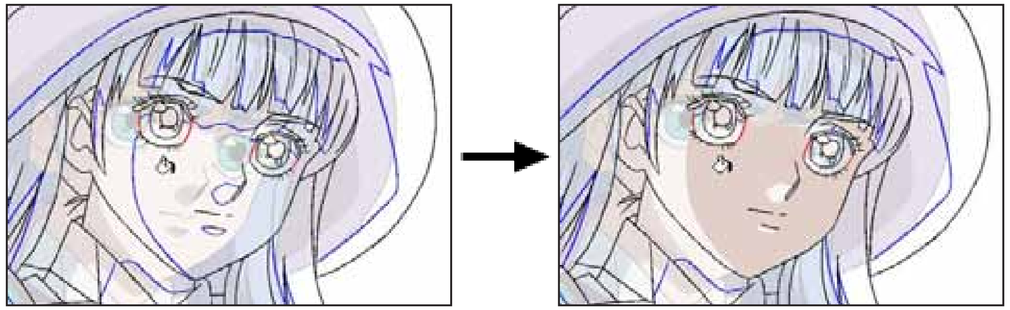
Move the mouse pointer to the reference area. The mouse pointer changes to [Eyedropper] tool. Click on the color you want to use for painting, the color is specified as the [Foreground Color].

Tips

- Clicking the [Load Current Images] button builds a swatch from the painted inbetween which would make it easier to paint the subsequent inbetweens for the same scene.
- The [Eyedropper] tool changes to [Hand] tool during the time the [Ctrl/Cmd] key is held down, allowing you to scroll the image in the reference area or in the [Cel] window.

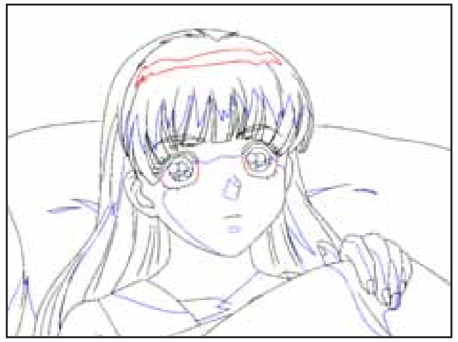
Color styling using the light table

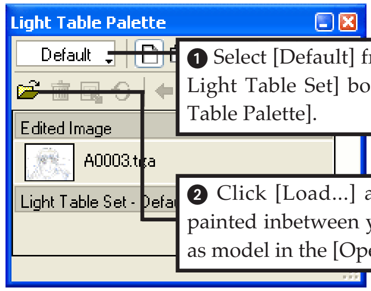
As with the [Sub Palette], you can also pick colors from the [Light Table]. This is convenient for painting inbetweens with few movements.



1. Load the model image to the light table palette.

Select [Light Table Palette] from the [Window] menu and load the image you want to use as model.



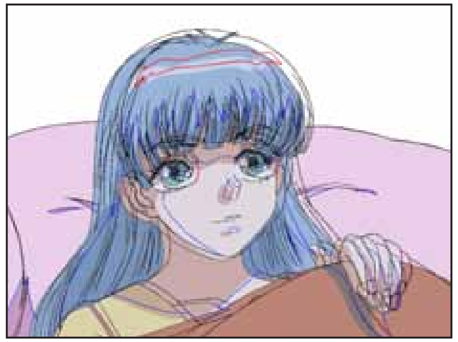

Light Table Palette
Default
Edited Image
A0003.tga
Light Table Set - Default

❶ Select [Default] from the [Switch Light Table Set] box on the [Light Table Palette].

❷ Click [Load...] and specify the painted inbetween you want to use as model in the [Open] dialog box.

2. View the model image.

The image loaded to the [Light Table] is opened and shown overlapped to the current image.



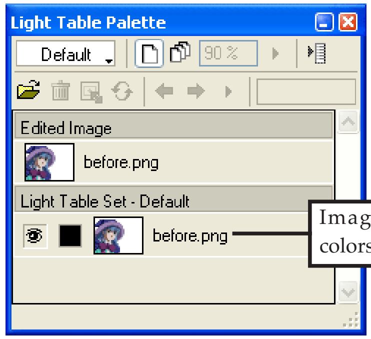
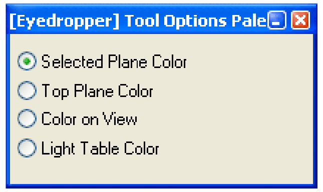

Light Table Palette
Default
90 %
Edited Image
before.png
Light Table Set - Default
before.png

Image from which colors will be picked.

3. Configure the Eyedropper tool options palette.

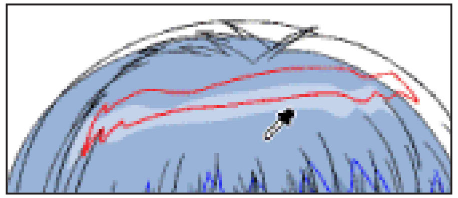
Select [Eyedropper] tool from the [Tool Palette]. And select [Light Table Color] in the [Eyedropper] tool options palette.


[Eyedropper] Tool Options Pale

● Selected Plane Color
○ Top Plane Color
○ Color on View
○ Light Table Color

4. Pick a color from the light table.

With the [Eyedropper] tool, click to pick the color from the [Light Table] image.



Tips

- If [Use Light Table Color] is selected for the [Fill] tool options ([F4] key), the color on the [Light Table] that is directly under the clicked point is selected for the [Fill] tool irrespective of the currently specified foreground color.
- To move the [Light Table] image, select the [Light Table] tool from the [Tool Palette] ([I] key) and drag.

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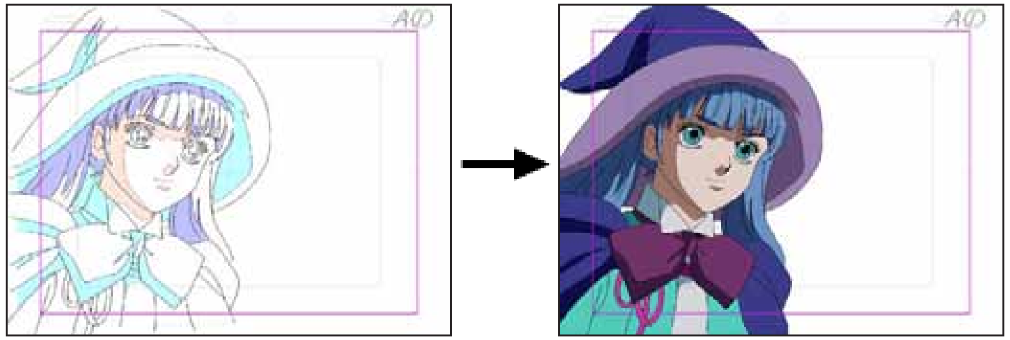
Painting

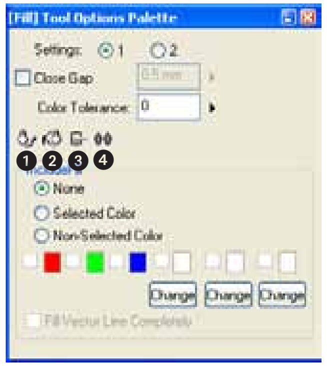
Fill tool F

Fills a closed area with the same color as the clicked pixel with the foreground color.

Specify the foreground color by picking the color from the swatch using the [Eyedropper] tool or by selecting in the [Color] dialog box, then click anywhere within the area you want to fill.



Fill tool options palette



Settings: ● 1 ○ 2

☐ Close Gap 0.5 mm

Color Tolerance: 0

● None

○ Selected Color

○ Non-Selected Color

- **[Settings]**
  Allows you to have 2 settings stored.
- **[Close Gap]**
  Closes the gap and continues painting if a gap smaller than a specified size is found in a supposedly closed area.
- **[Color Tolerance]**
  The higher the value, the wider the range of colors considered the same.

❶ **[Refer to Light Table Border Line]**
The lines in the light table image are also treated as border lines.

❷ **[Use Light Table Color]**
Uses the light table image color to fill, irrespective of the foreground color.

❸ **[Stop at Paint Overflow]**
Stops painting if paint overflow is detected when painting a supposedly closed area.

❹ **[Fill Separated Area]**
When there are separate areas of the same color, paints all of them.

[IncludeFill]
Colors registered under this item are not considered border lines and filled together with the area at painting.

* For details on [IncludeFill], see the relevant section in this chapter.

Tips

- Pressing the [Shift] key before clicking turns off the [IncludeFill].
- Pressing the [Alt/Opt] key before clicking changes the tool to [Eyedropper].
- Pressing the [Shift] + [Alt/Opt] keys before clicking allows you to pick a color from the light table with the tool changed to [Eyedropper].
- Pressing the [Space] key before clicking changes the tool to [Pencil].
  (For [Vector Paint Layer], the tool changes to [Join Line] tool)
- Pressing the [Shift] + [Space] keys before clicking changes the tool to [Pencil] with the auto-erase function turned off.

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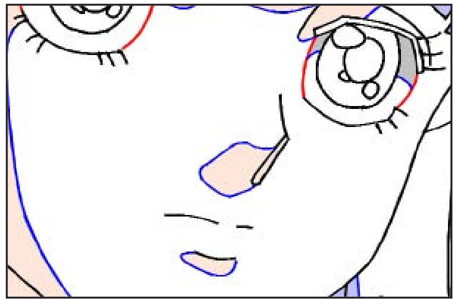
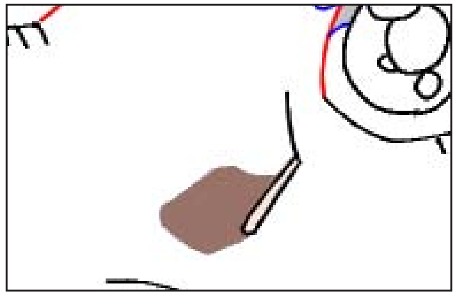
Fill tool: IncludeFill

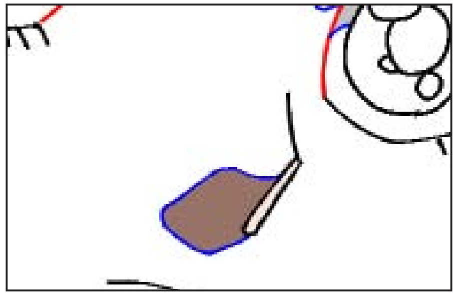
In the [Fill] tool options palette, you can configure [IncludeFill] to also fill the colors whose check boxes are selected at painting. This function is mainly for erasing the color separation lines during painting. Normally in the animation production, the color separation lines are painted together with the shadow. In other words, have [Selected Color], red, green, and blue selected unless you need to keep the color separation lines.



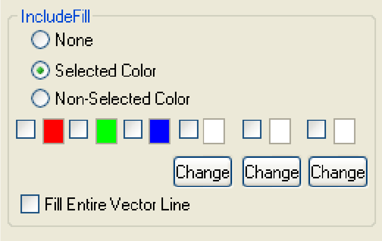
Original image



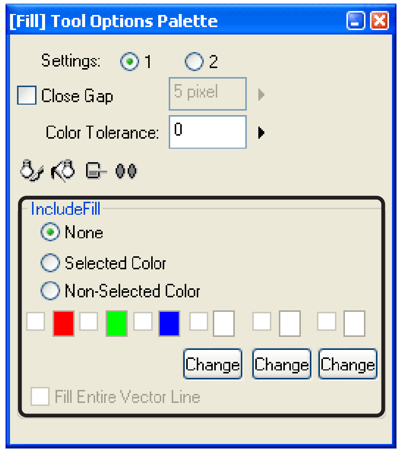
[IncludeFill]: ON



[IncludeFill]: OFF



IncludeFill
○ None
● Selected Color
○ Non-Selected Color
☐ 🟥 ☐ 🟩 ☐ 🟦 ☐ ☐ ☐ ☐ ☐ ☐
☐ Fill Entire Vector Line

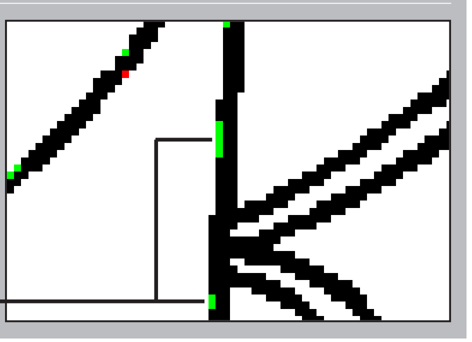


[Fill] Tool Options Palette
Settings: ● 1 ○ 2
☐ Close Gap 5 pixel
Color Tolerance: 0
IncludeFill
● None
○ Selected Color
○ Non-Selected Color
☐ 🟥 ☐ 🟩 ☐ 🟦 ☐ ☐ ☐ ☐ ☐ ☐
☐ Fill Entire Vector Line

- **[None]**
  This is the default settings. Fills by leaving the color separation lines intact.
- **[Selected Color]**
  Fills including the colors specified in the color boxes below.
- **[Non-Selected Color]**
  Fills except the colors specified in the color boxes below.
- **Color box**
  Selected colors will be painted with [IncludeFill]. Up to 6 colors, including the basic 3 can be specified.
- **[Change] button**
  Clicking this button adds the foreground color to one of the color boxes above.
- **[Fill Entire Vector Line]**
  Replaces the entire line with the foreground color even if only a portion of the vector line has been specified.

Tips

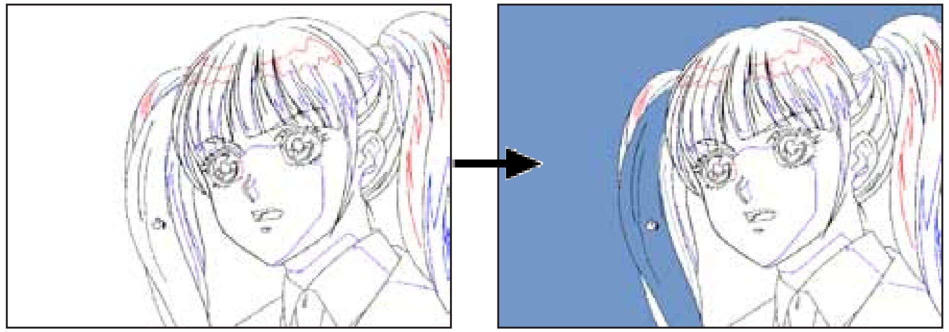
A scanned image may have tiny color pixels around lines that come from bleeding.
To erase such pixels, you may have the basic [IncludeFill] colors (red, green, and blue) selected even when you do not have color separation lines so that they are erased at painting.
Then, click outside the outline with a transparent color at the end.



Deletion of unnecessary pixels using [IncludeFill]

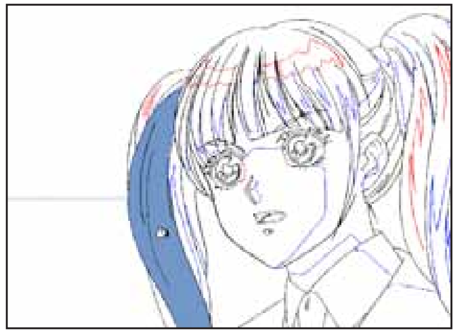
Fill tool: Stop at paint overflow

If you have options such as [Close Gap] and [Stop at Paint Overflow] selected in the [Fill] tool options palette, you can prevent paint to leak from tiny gaps in the lines.



In the example, the line has a gap and the paint that leaked through the gap filled all the outside area making it difficult to locate the gap.

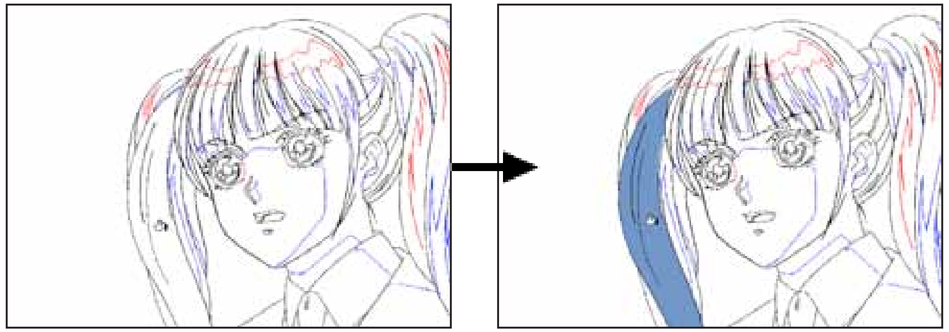
If you fill with the [Stop at Paint Overflow] check box selected, the fill stops automatically when an overflow is detected. And you can easily locate the point at which the outline has a gap as a guide line will be drawn up to the edge of the image.



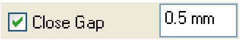
In this case, you can undo the operation by pressing [Ctrl/Cmd] + [Z] and correct the line.
The paint overflow may be prevented by having the [Close Gap] selected.

Fill tool: Close Gap

[Close Gap] is a new function useful to prevent paint leak through tiny gaps.

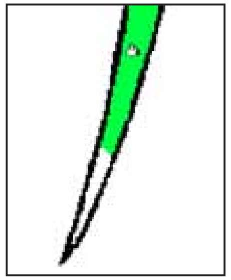


With this function, gaps of a number of pixels close to a value you specified through numeric entry or slider are considered closed and prevents the paint to go beyond the gap.

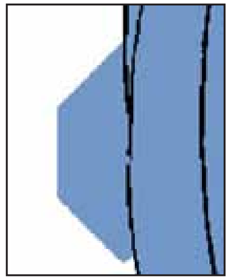


☑ Close Gap 0.5 mm

When always selected, care is necessary as it may stop painting easily when painting narrow segments. However, specifying a larger gap is not the solution either as paint may leak through the gap.



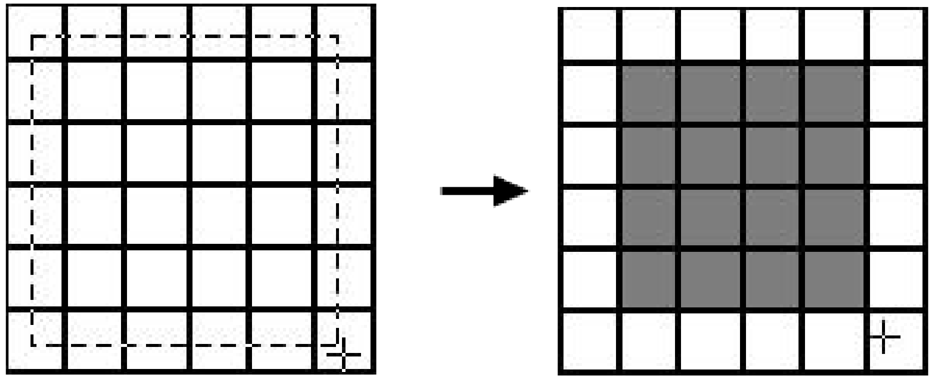
Example of failure: 5 pixels
Stops painting



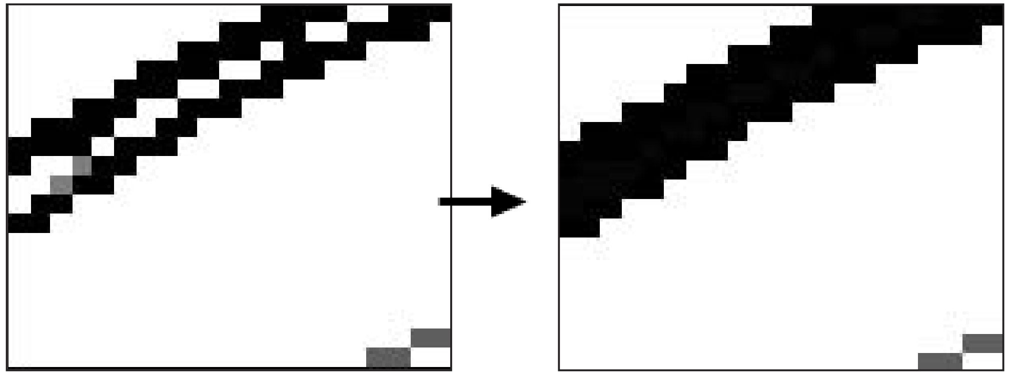
Example of failure: 50 pixels
Paint leaks

CloseFill tool

This is a function that fills all closed areas within a selection with the foreground color.
That is, this function allows you to paint all of the multiple closed areas in an image at once.

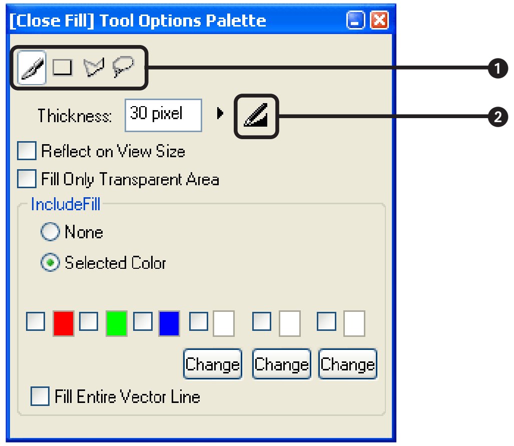


For example, if you want to paint an image with a lattice pattern as in the figure above with the [Fill] tool, you need to click the mouse multiple times.
With the [CloseFill] tool, you can fill all lattices at once by just selecting the area you want to paint.



The [CloseFill] is also convenient for painting hair ends, for example, that would cause the [Fill] tool to stop painting frequently, or for painting portions that are very narrow and therefore complicate such as 1-dot wide lines.
The shape of the selection tool for selecting the closed areas can be changed with the [Tool Options Palette].

CloseFill tool options palette



[Close Fill] Tool Options Palette

Thickness: 30 pixel

☐ Reflect on View Size

☐ Fill Only Transparent Area

IncludeFill

○ None

● Selected Color

☐ Change ☐ Change ☐ Change

☐ Fill Entire Vector Line

❶ **Selection Option**

Allows you to select the method for specifying the target area (selection) from [Pen], [Rectangle], [Polyline], and [Lasso]. For [Pen], the selection is the area filled using the tool while for [Rectangle], [Polyline], and [Lasso] is the area enclosed by the shape drawn with the tool.

- **[Thickness]**

  Allows you to specify the thickness of the line for the [Pen] tool.

❷ **[Reflect Pen Pressure on Thickness]**

Allows you to reflect the pen pressure applied for drawing a line in the thickness of the line for the [Pen] tool. Click to toggle the function on and off.

- **[Reflect on View Size]**

  If selected when [Pen] is selected as the Selection Option, the pen size when the screen view is scaled becomes the size when the screen is shown at 100% view.

- **[Fill Only Transparent Areas]**

  Paints only the unpainted areas in a selection.

- **[IncludeFill]**

  Colors registered under this item are not considered border lines and filled together with the area at painting.

* For details on [IncludeFill], see the relevant section in this chapter.

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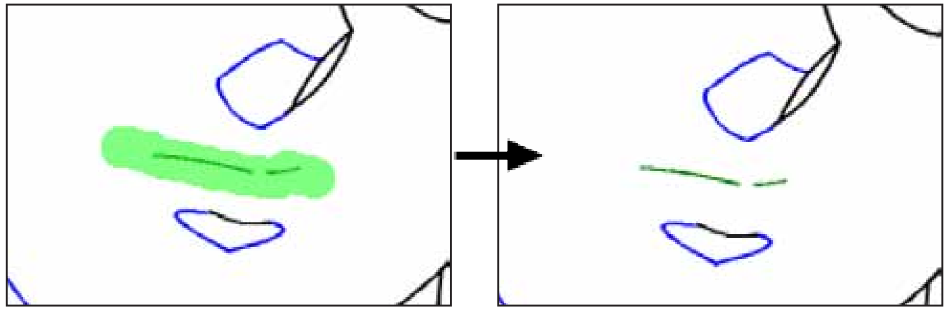
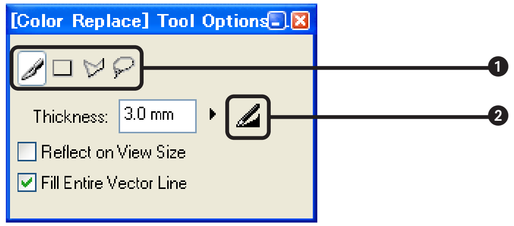
Color Replace tool J

Replaces the color of a specified selection with the foreground color you specified. This function affects the paint color on the painting plane and the outline on the outline plane.



Color Replace tool options palette



Thickness: 3.0 mm

☐ Reflect on View Size

☑ Fill Entire Vector Line

① Selection Option

Allows you to select the method for specifying the target area (selection) from [Pen], [Rectangle], [Polyline], and [Lasso]. For [Pen], the selection is the area filled using the tool while for [Rectangle], [Polyline], and [Lasso] is the area enclosed by the shape drawn with the tool.

- **[Thickness]**

  Allows you to specify the thickness of the line for the [Pen] tool.

② [Reflect Pen Pressure on Thickness]

Allows you to reflect the pen pressure applied for drawing a line in the thickness of the line for the [Pen] tool. Click to toggle the function on and off.

- **[Reflect on View Size]**

  If selected when [Pen] is selected as the Selection Option, the pen size when the screen view is scaled becomes the size when the screen is shown at 100% view.

- **[Fill Entire Vector Line]**

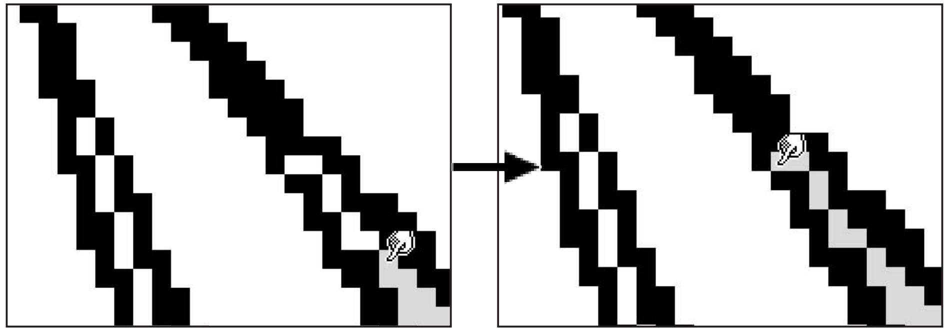
  Replaces the entire line with the foreground color even if only a portion of the vector line has been specified.

Tips

The [Replace Line Color] ([Ctrl/Cmd] + [L] keys) under the [Edit] menu is similar in function.
Note that if there is not a selection made in advance, the [Replace Line Color] command will fill the entire area on screen of the selected plane with the foreground color.

Extender tool U

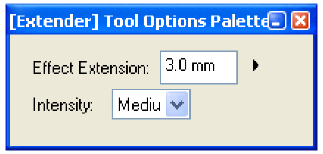
This functions allows you to extend the color of a painted area to a narrow segment by dragging.



This function is convenient for painting very narrow segments, such as the hair ends which if painted with the ordinary [Fill] tool would leave unpainted portions due to clogging. This tool can be used with relatively rough operation because color is applied only to narrow, closed segments.

The [Extender] tool does not paint by judging the context, so some paint overflow may occur. To correct, paint over the overflow with the [Fill] tool. If you have many small overflows beyond the outline, register the overflowed color as an [IncludeFill] color on the [Fill] tool options palette then pick white in the BG with the Eyedropper tool and click the BG with the [Fill] tool.

Extender tool options palette



Effect Extension: 3.0 mm

Intensity: Mediu

- **[Effect Extension]**

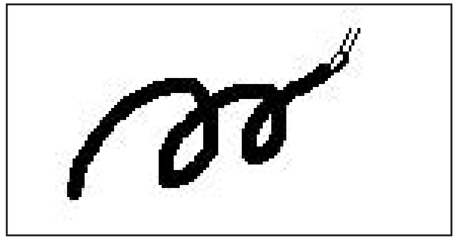
  Allows you to specify the extension of the effect.

- **[Intensity]**

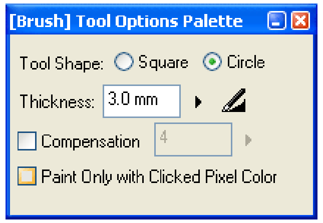
  Allows you to select the degree of the effect.

Brush tool B

Allows you to paint like with a brush, by dragging the tool.



Brush tool options palette



[Brush] Tool Options Palette

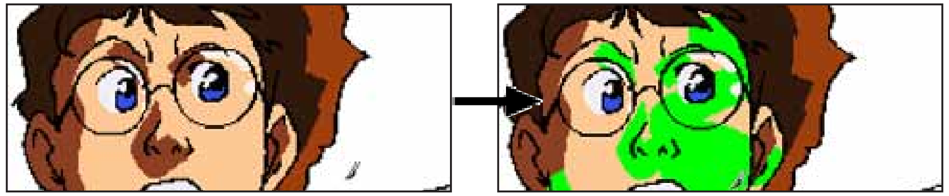
Tool Shape: ○ Square ● Circle

Thickness: 3.0 mm

☐ Compensation 4

☐ Paint Only with Clicked Pixel Color

- **[Tool Shape]**
  Allows you to select whether the brush: will be round or square in shape.
- **[Thickness]**
  Allows you to specify the thickness of the brush stroke.
- **[Reflect Pen Pressure on Thickness]**
  Reflects the brush pressure applied to the graphics tablet when drawing on the line thickness.
- **[Compensation]**
  Smoothes the drawn line.
- **[Paint Only with Clicked Pixel Color]**
  Paints only the clicked pixel. This option is convenient for a partial color replace.



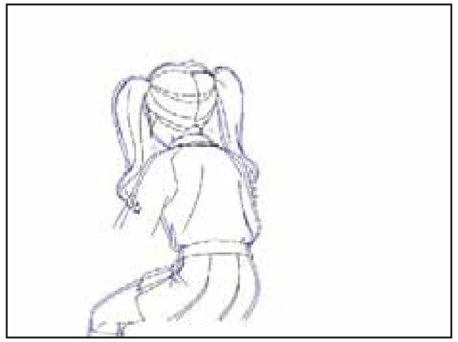
Tips

[Paint Only with Clicked Pixel Color] is equivalent to the [Brush 2] in PaintMan Ver. 5.

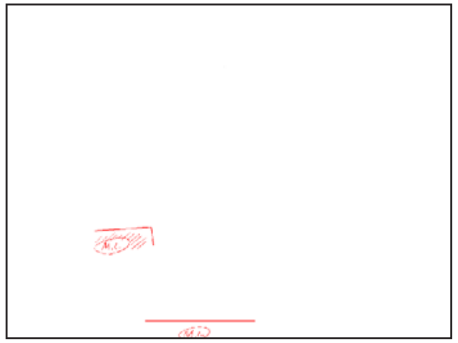
Painting a cel with BorderLine

Sometimes, it is necessary to create inbetweens with missing portions as they overlap with objects in the BG, for example.

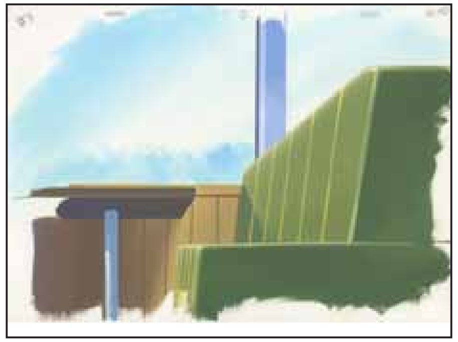
The border line that indicates such parts is called BorderLine. Inbetweens with "BorderLine" are painted using the [Light Table]. The procedure for painting a cel with BorderLine is described below.



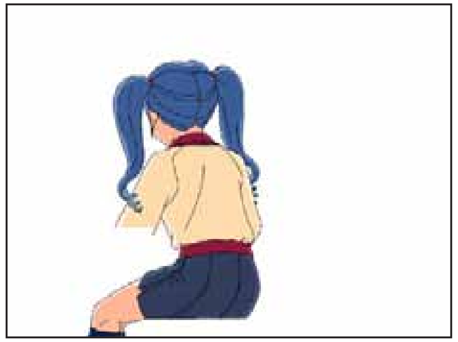
Cel



BorderLine



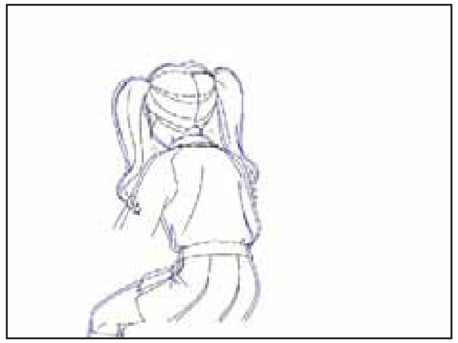
BG



Painted inbetween

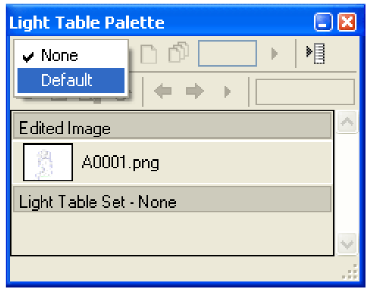
1. Open the cel.

Open the relevant "cel" in the [Cel] window.



2. Open the light table.

Select [Light Table Palette] from the [Window] menu (or [F6] key) then [Default] for the [Switch Light Table Set] box on the [Light Table Palette].



Light Table Palette

✓ None

Default

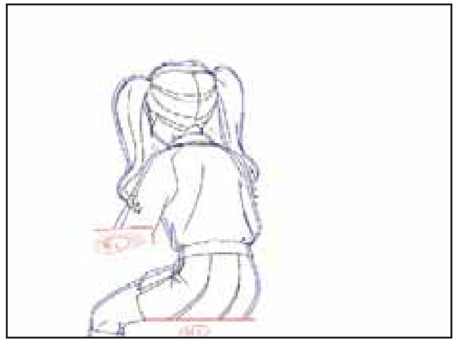
Edited Image

A0001.png

Light Table Set - None

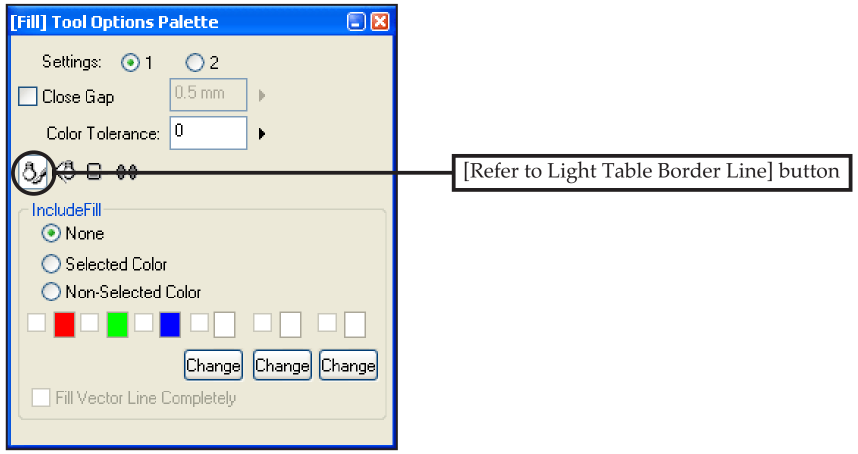
3. Loading the BorderLine to the light table

Click [Load...] and select the [Cel] with the BorderLine from the [Open File] dialog box that appears.
The BorderLine appears on the [Light Table] and is shown overlapped to the cel.



4. Simulate border line with the BorderLine.

Open the [Tool Options Palette] (F4) and click [Refer to Light Table Border Line]. The BorderLines on the [Light Table] are also handled as border lines for painting.



[Fill] Tool Options Palette

Settings: ● 1 ○ 2

☐ Close Gap 0.5 mm

Color Tolerance: 0

IncludeFill

● None

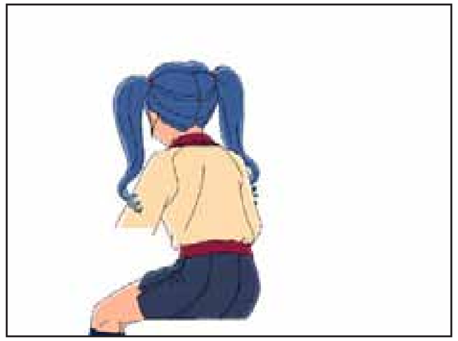
○ Selected Color

○ Non-Selected Color

☐ Fill Vector Line Completely

5. Paint the cel.

Paint the cel using the [Fill] tool.



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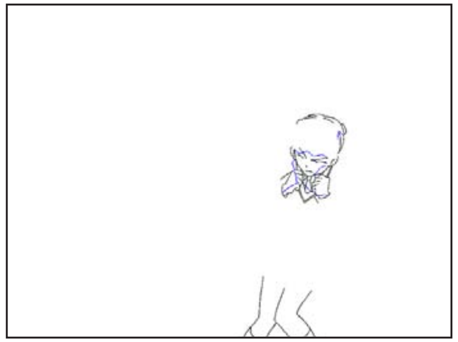
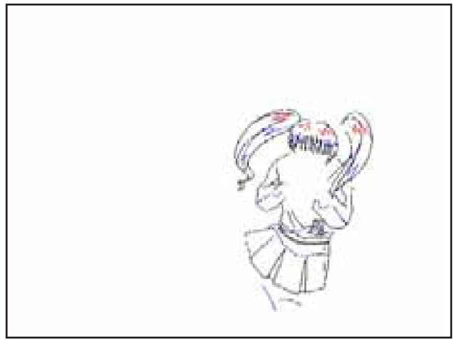
Painting a combined cel

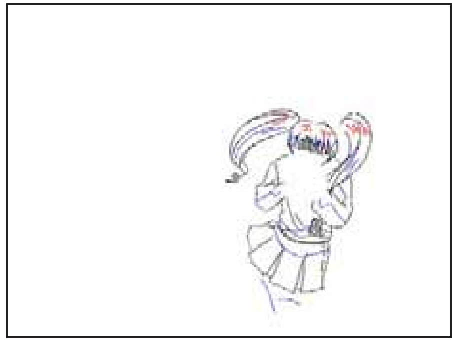
Combined cel is a cel used in scenes where only a part of the inbetweens is animated which is useful for saving the number of inbetweens to draw. In a combined cel, the static part is drawn in a "mother cel" and the animated part, in child cels. The procedure for painting a combined cel is described below.



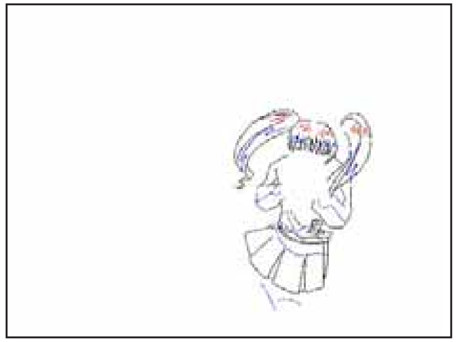
Mother cel



Child cel 1



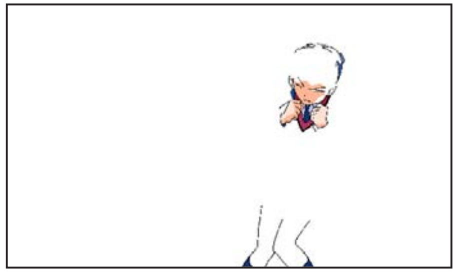
Child cel 2



Child cel 3

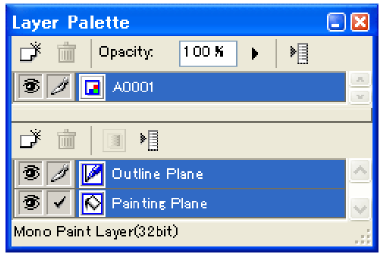
1. Paint the mother cel.

Paint the closed areas in the mother cel.



2. Select the mother cel.

Select the whole screen using [Select All] under the [Selection] menu. Open the [Layer Palette] (F5), select the check box, select both [Outline Plane] and [Painting Plane] as targets.

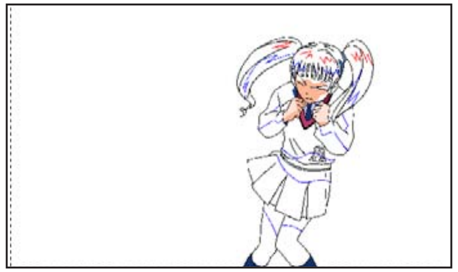


3. Copy the mother cel.

Copy the image onto the clipboard using [Copy] under the [Edit] menu ([Ctrl/Cmd] + [C]).

4. Paste the mother cel to the child cel.

Open a [Cel] window with the child cel 1 and paste the mother cel image using [Paste] under the [Edit] menu ([Ctrl/Cmd] + [V]).

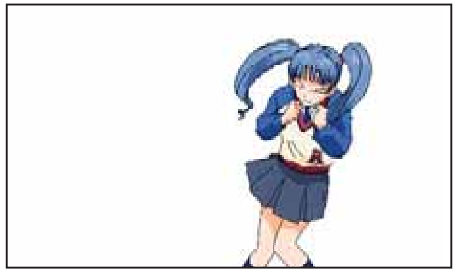


5. Deselect the mother cel.

Deselect the mother cel using [Deselect] under the [Selection] menu ([Ctrl/Cmd] + [D]).

6. Paint the child cel.

Paint the child cel1.



Tips

For child cels 2 and 3, repeat the steps 4 to 6 of pasting the painted mother cel and painting the child cel.

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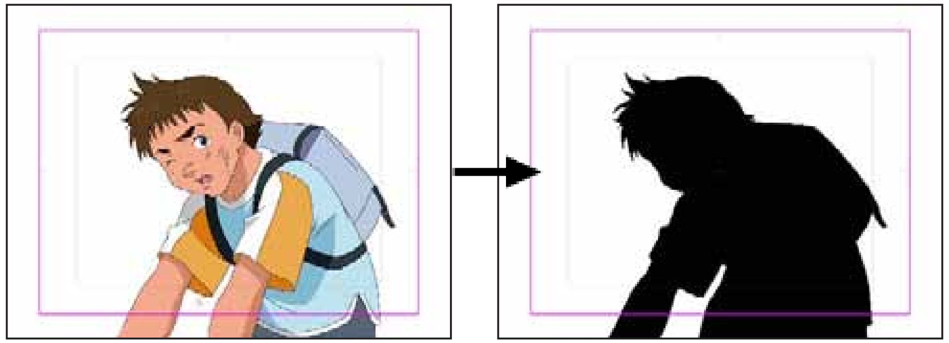
Checking

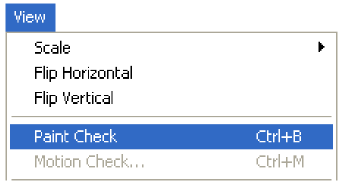
Performing a paint check

A white (transparent color) check is necessary once painting with PaintMan HD is complete because pure white (R:255, G:255, B:255) becomes transparent after white transparent compositing in white with CoreRETAS. The procedure for this check is as follows.



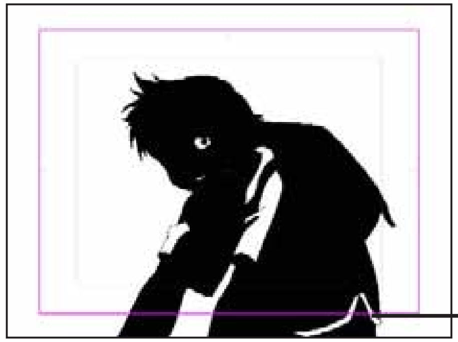
1. Select the command.

Select [Paint Check] from the [View] menu.


View
Scale
Flip Horizontal
Flip Vertical
Paint Check Ctrl+B
Motion Check... Ctrl+M

2. Completion

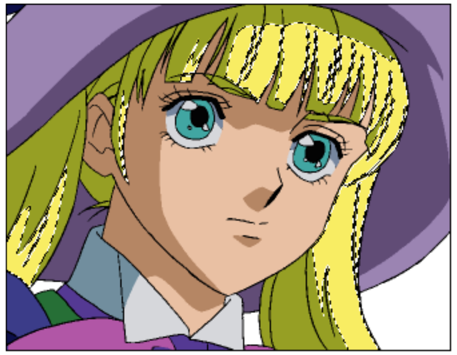
All colors except pure white are shown in black so that you can easily detect unpainted areas.



The white part of the eyes and the line in the T-shirt need to be corrected as they are in pure white (transparent color).

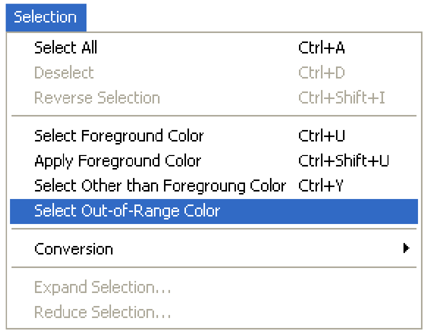
Checking for out-of-range colors

This function allows you to select only colors exceeding the video level permitted in NTSC, which is very convenient for checking the color design and color styling, as well as the finished animation. The procedure for this check is as follows.



1. Select the command.

Select [Select Out-of-Range Color] from the [Selection] menu.


Selection
Select All Ctrl+A
Deselect Ctrl+D
Reverse Selection Ctrl+Shift+I
Select Foreground Color Ctrl+U
Apply Foreground Color Ctrl+Shift+U
Select Other than Foregroung Color Ctrl+Y
Select Out-of-Range Color
Conversion
Expand Selection...
Reduce Selection...

2. Completion

Only the colors that exceed the permitted video level in NTSC are selected.

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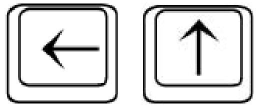
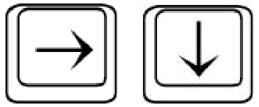
Simple motion check on current cel

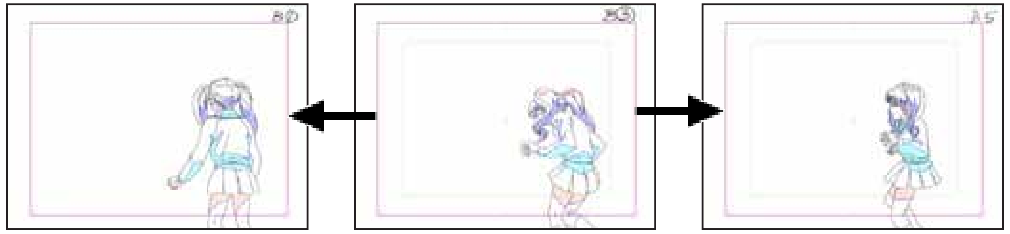
This function allows you perform a motion check on sequentially numbered images of the current cel. It allows you to specify the view size and the range of images to check, as well as perform the motion check by the frame using key operation.
However, this function does not allow you to check the cel stacking or perform a motion check according to the timings specified in the X-sheet.



Show previous frame



Show next frame



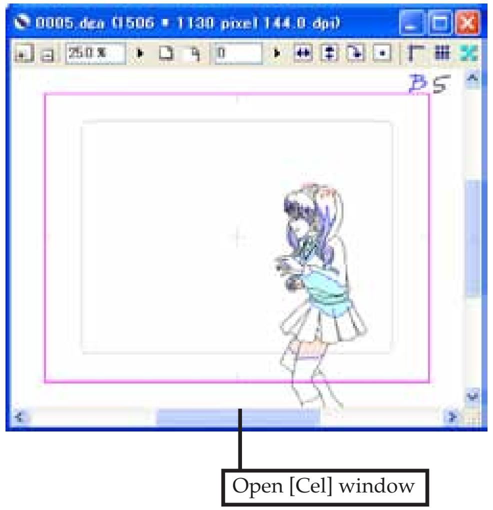
Previous frame

Current frame

Next frame

1. Select the command.

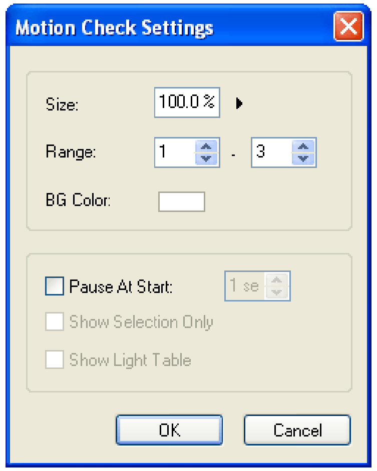
Select [Motion Check...] from the [View] menu with the [Cel] window opened.



0005.dga (1506 × 1130 pixel 144.0 dpi)

2. Configure the Motion Check settings.

Configure the necessary items in the [Motion Check Settings] dialog box that appears.



Motion Check Settings

Size: 100.0 %

Range: 1 - 3

BG Color:

☐ Pause At Start: 1 se

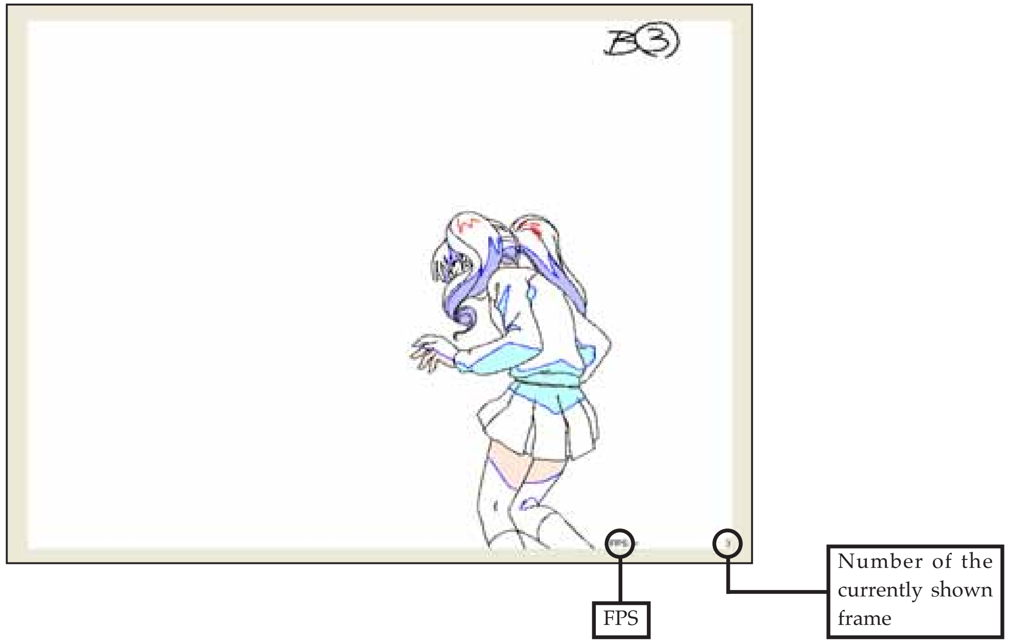
☐ Show Selection Only

☐ Show Light Table

- **[Size]**
  Allows you to specify the view size for the images in percent.
- **[Range]**
  Allows you to specify the range of sequentially numbered cels to view using the numbers shown in the [File Previewer].
- **[BG Color]**
  Clicking this item allows you to specify the BG for the images being played.
- **[Pause At Start]**
  Selecting this check box inserts a pause at the start of the motion check for a specified number of seconds. The pause can be specified in the 1 - 10 range. This pause is used to separate one slide show from another when played countinuously.
- **[Show Selection Only]**
  Allows you to view only a selected part of the images if selection is made in the [Cel] window in advance using a selection tool.
- **[Show Light Table]**
  Allows you to also view the images loaded to the light table in the motion check.
- **[OK]**
  Confirms the settings and executes the motion check.
- **[Cancel]**
  Cancels the settings and closes the dialog.

3. Check motion.

The images configured using [Motion Check Settings] dialog box are shown as a slide show.


B③
FPS
Number of the currently shown frame

4. Performing a motion check by the frame using key operation.

The following keyboard operations are available during a Motion Check for performing a check by the frame.

- **[Space]**
  Pause; Play
- **[Esc]**
  Stop
- **[Left] [Up]**
  Show previous frame
- **[Right] [Down]**
  Show next frame

Tips

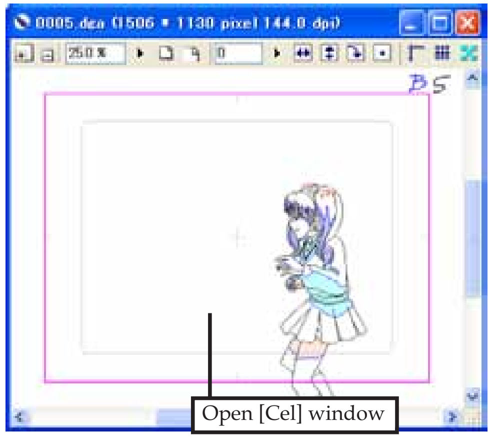
The [Motion Check] from the X-sheet allows you to check the cel stacking as well as the timings specified in the X-sheet. For details, see the relevant part in "Chapter 4 Basics of RETAS!PRO".

Slide show

This function allows you perform a simple check on sequentially numbered images of the current cel. No settings are available for this function.

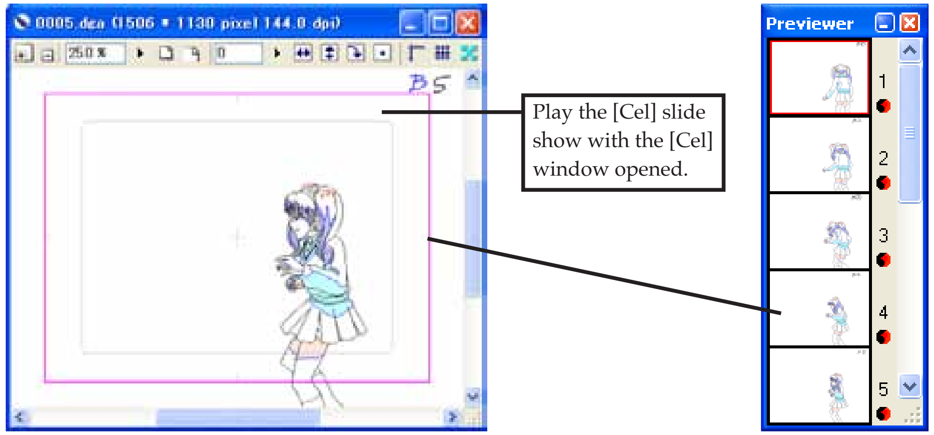
1. Select the command.

Select [Slide Show] from the [View] menu with the [Cel] window opened.


0005.dga (1506 × 1130 pixel 144.0 dpi)
250 %
B5
Open [Cel] window

2. Play the slide show.

The sequentially numbered images are shown as a slide show. To confirm the currently shown image, check the [File Previewer]. It is indicated with a red frame.


0005.dga (1506 × 1130 pixel 144.0 dpi)
250 %
B5
Previewer
1
2
3
4
5
Play the [Cel] slide show with the [Cel] window opened.

3. Finish the slide show.

Press [Esc] key.

Chapter 9

Light Table

Basics of light table

What is a light table?

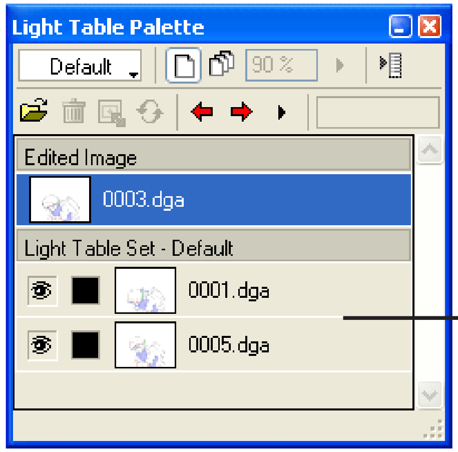
The RETAS!PRO light table allows you to load multiple images. Loaded images can be manipulated individually. That is, each image may have its opacity and/or color adjusted, its offset changed, or its view scaled or rotated separately.

The type and settings of the images loaded to the light table (light table image) can be saved in it in the form of "sets" and retrieved as needed.

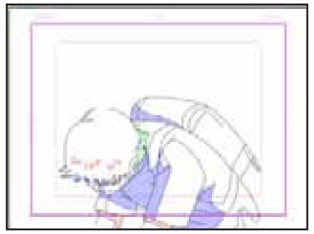
Light table palette

A [Light Table Palette] is a palette used for showing the other light table images semi-transparently through the image being edited (edited image).

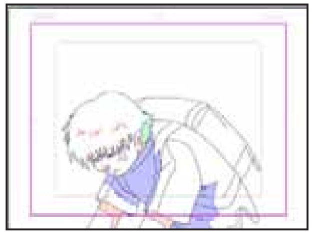
It is mainly used for showing images of layouts, keys, corrections, etc. as reference for drawing, or for showing the inbetweens and/or BG for marking borderlines for painting.


Light Table Palette
Default
90 %
Edited Image
0003.dga
Light Table Set - Default
0001.dga
0005.dga

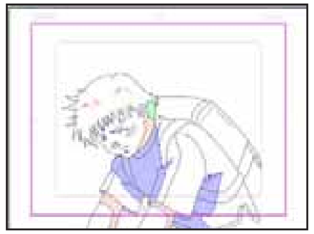
Example: [0001] and [0005] are light table images.



Inbetween no. 1: [0001]



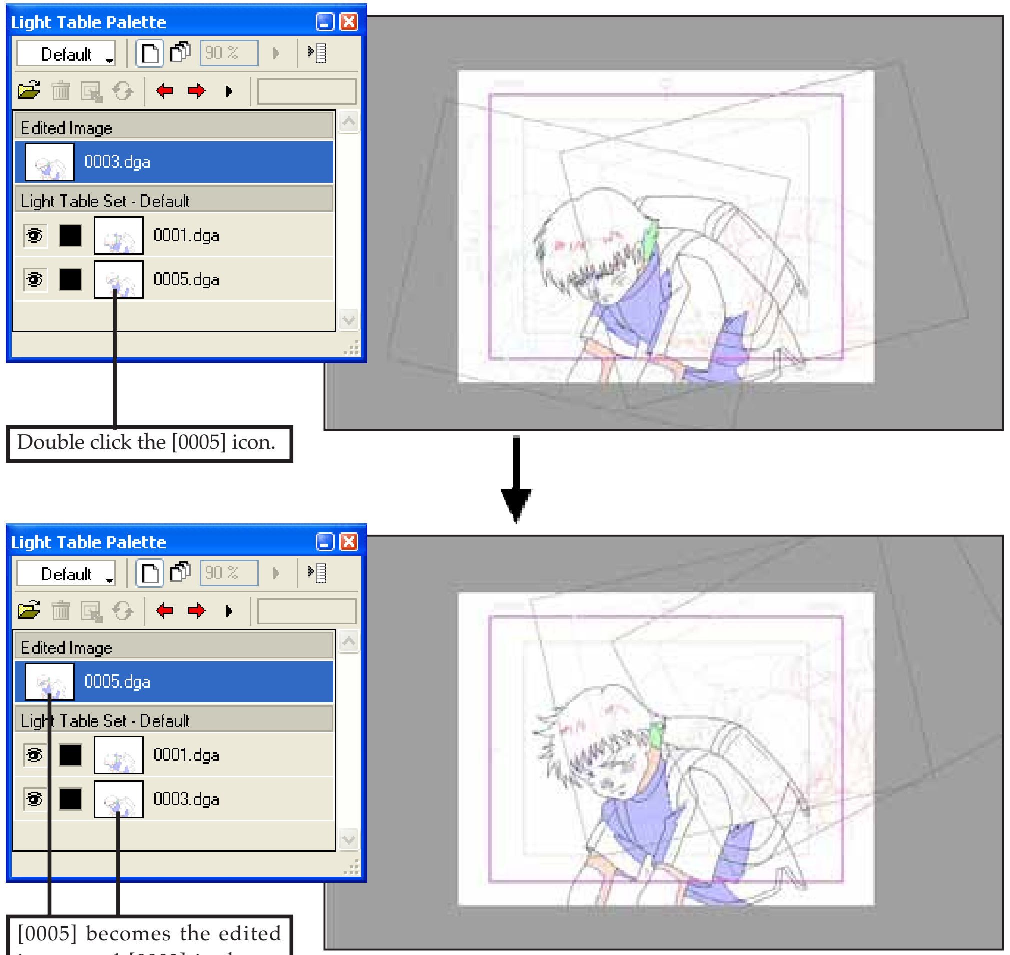
Inbetween no. 3: [0003]



Inbetween no. 5: [0005]

Features

- You can instantly swap the image you are drawing with any shown on the light table. When swapped, the image on the light table becomes the edited image while the image you were editing goes to the light table.
- You may work as if having multiple light tables (light table [Set] function).
  The light table saves the location of loaded images, its offset, its transparency, and other information in what is called a [Set].
  By defining multiple [Sets] to work with, you get the feeling of working with multiple light tables.


Light Table Palette
Default
90 %
Edited Image
0003.dga
Light Table Set - Default
0001.dga
0005.dga
Light Table Palette
Default
90 %
Edited Image
0005.dga
Light Table Set - Default
0001.dga
0003.dga

Double click the [0005] icon.

[0005] becomes the edited image and [0003] is shown on the light table instead.

(STYLOS HD screen image.
Screen cannot be rotated in PaintMan HD.)

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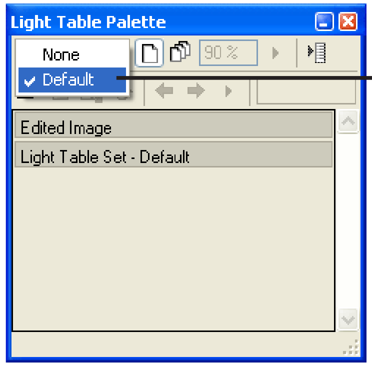
Loading an image

The procedure for loading an image to the light table is as follows.

1. Switch the light table set.

Click [Switch Light Table Set] on the [Light Table Palette] and switch the light table set from [None] to any other. ([Default], for example)

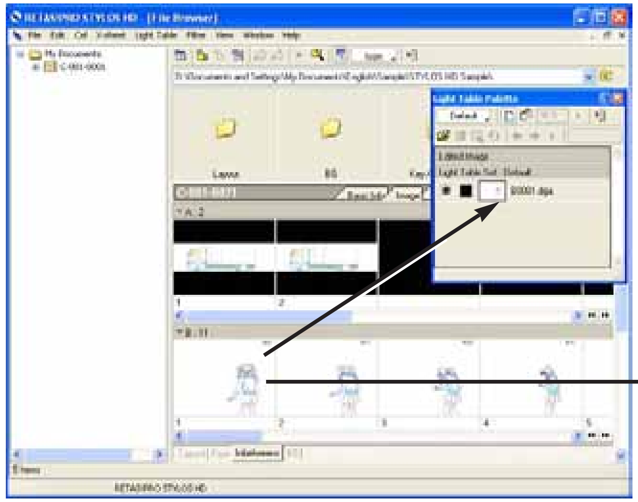

Light Table Palette
None
Default
90 %
Edited Image
Light Table Set - Default

Select [Default] from the [Switch Light Table Set] pull-down menu.

(STYLOS HD screen image)

2. Load the image.

Select the image you want to load to the [Light Table Palette] from the [File Browser] then drag and drop. You may also load multiple images in one operation.


Light Table Palette

Select an image and drag and drop to the [Light Table Palette].

Deleting an image

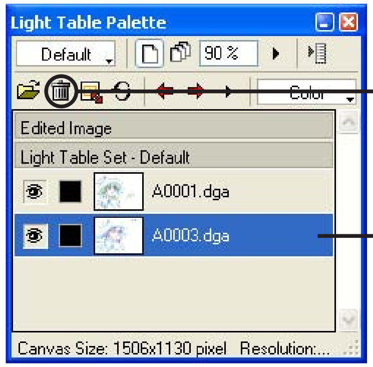
The procedure for deleting an image from the light table is as follows.

1. Switch the light table set.

Click [Switch Light Table Set] on the [Light Table Palette] and switch the light table set from [None] to any other. ([Default], for example)

2. Delete the image.

Select the image you want to delete from the [Light Table Palette] and click [Delete].


Light Table Palette
Default
90 %
Color
Edited Image
Light Table Set - Default
A0001.dga
A0003.dga
Canvas Size: 1506x1130 pixel Resolution:...

❷ Click [Delete].

❶ Select the image to delete.

(STYLOS HD screen image)

Tips

Alternative ways to load an image are: 1) using the [Load...] button on the [Light Table Palette], and 2) using the [Load to Light Table] button on the [File Browser].

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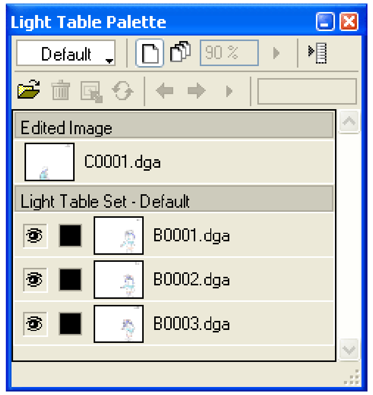
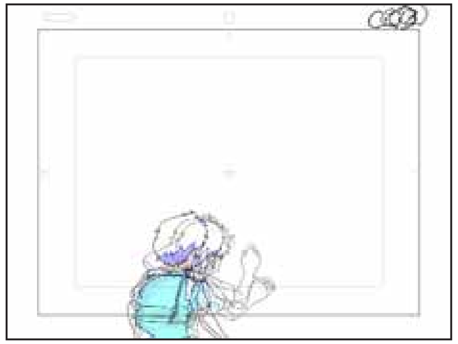
Manipulating a light table image

The procedure for moving, rotating, enlarging, or reducing a light table image is as follows.

1. Open the light table.

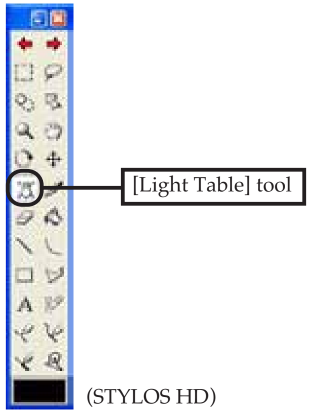
With the [Cel] window opened, click [Switch Light Table Set] on the [Light Table Palette] and switch the light table set from [None] to any other. ([Default], for example)


Light Table Palette
Default
90 %
Edited Image
C0001.dga
Light Table Set - Default
B0001.dga
B0002.dga
B0003.dga

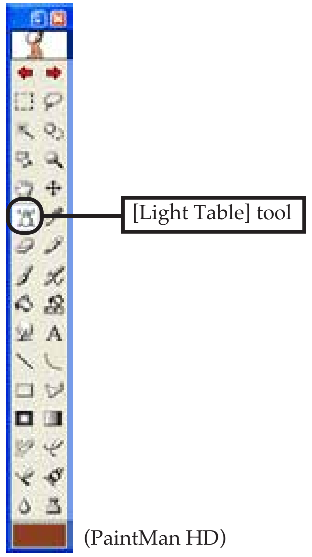


2. Select the Light Table tool.

Select [Light Table] tool from the [Tool Palette].


[Light Table] tool

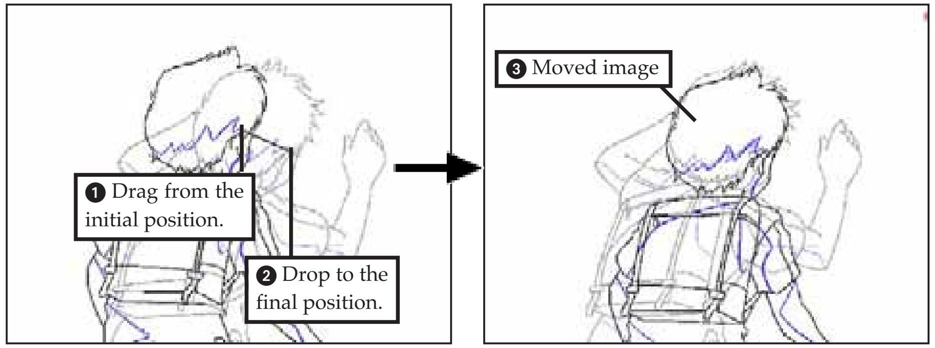
(STYLOS HD)


[Light Table] tool

(PaintMan HD)

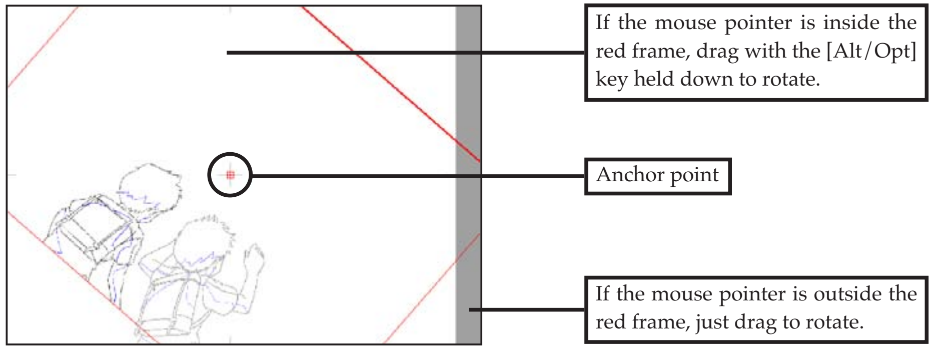
3a. Move the light table image.

Drag and drop the light table image in the [Cel] window.


❶ Drag from the initial position.
❷ Drop to the final position.
❸ Moved image

3b. Rotate the light table image. (Only STYLOS HD)

Drag and drop the loaded image in the [Cel] window.


If the mouse pointer is inside the red frame, drag with the [Alt/Opt] key held down to rotate.
Anchor point
If the mouse pointer is outside the red frame, just drag to rotate.

Tips

[Anchor Point] is the center point (origin) for rotating, enlarging, or reducing a light table image. The [Anchor Point] can be moved to any position by dragging with the mouse. Pressing the [Space] key when the light table is active moves the [Anchor Point] to the current mouse pointer position.

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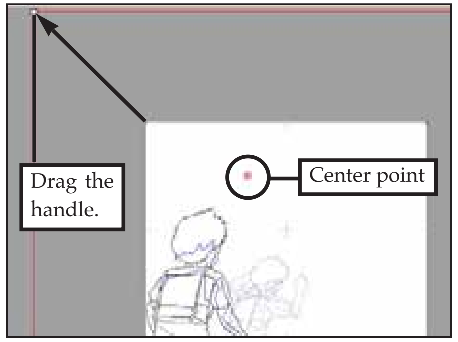
3c. Enlarge/Reduce the light table image. (Only STYLOS HD)

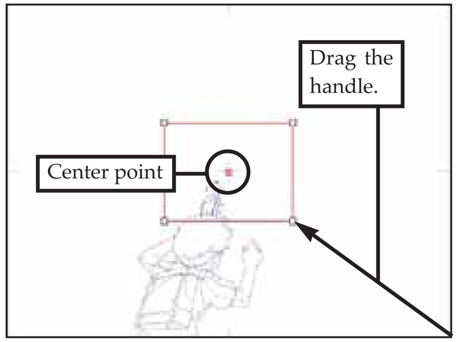
Drag the handle.



Drag the handle.

Center point

Enlarged



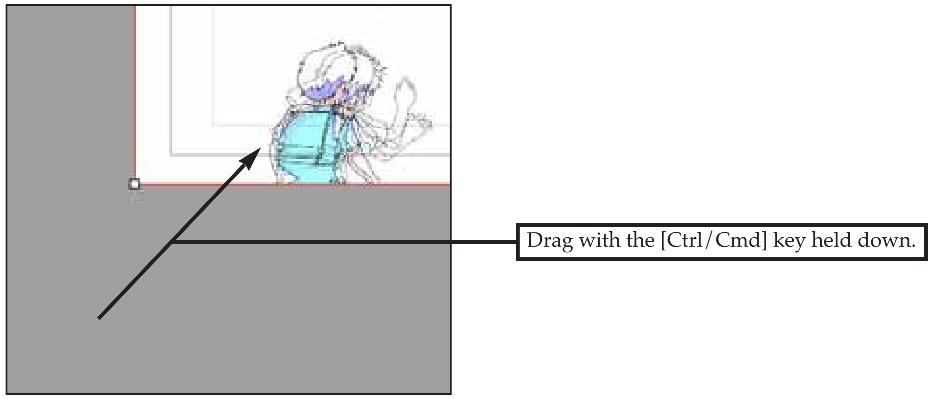
Drag the handle.

Center point

Reduced

3d. Move the entire light table image.

Drag the entire light table image.

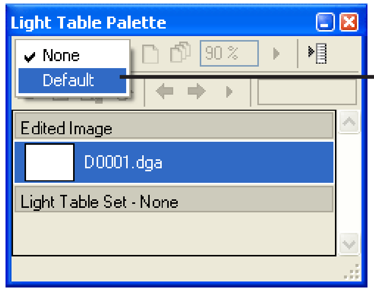


Drag with the [Ctrl/Cmd] key held down.

Light table set

What is a light table set?

[Light Table Set] is a set of information that can be saved and retrieved as needed and consists of the type of the light table images, and opacity, color, offset, scale, rotation, etc. of each of the light table images.


Light Table Palette
None
Default
90 %
Edited Image
D0001.dga
Light Table Set - None

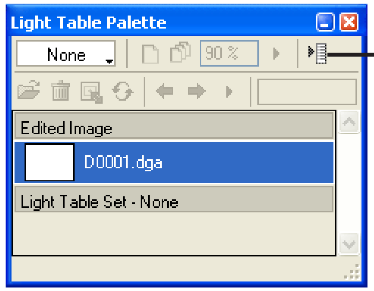
Available light table sets are listed in a pull-down menu.

Editing a light table set

The procedure for editing a light table set using the [Edit Light Table Set] dialog box is as follows.

1. Select Light Table menu.

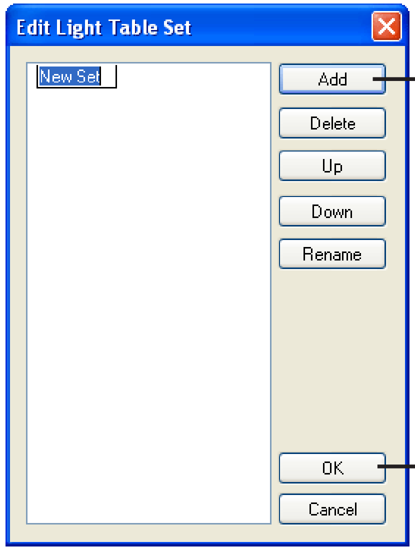
Select [Light Table] menu from the [Light Table Palette].


Light Table Palette
None
90 %
Edited Image
D0001.dga
Light Table Set - None

Select [Edit Set...] from the [Light Table] menu.

2. Edit the light table set.

Edit using the [Edit Light Table Set] dialog box that appears.

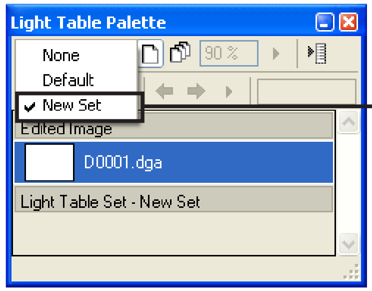

Edit Light Table Set
New Set
Add
Delete
Up
Down
Rename
OK
Cancel

❶ Click [Add]. Overwrite a name on the [New Set] that appears in the list area at the left.

❷ Click [OK] to finish with the settings.

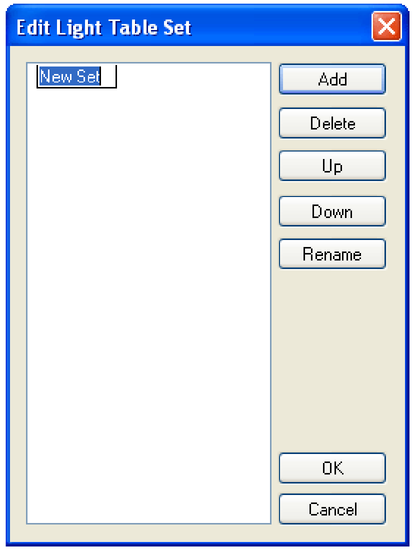
3. Select the light table set.

Return to the [Light Table Palette] and select the [Switch Light Table Set] pull-down menu. You must able to select the light table set you have added.


Light Table Palette
None
Default
✓ New Set
90 %
Edited Image
D0001.dga
Light Table Set - New Set

The clicked set becomes selected.

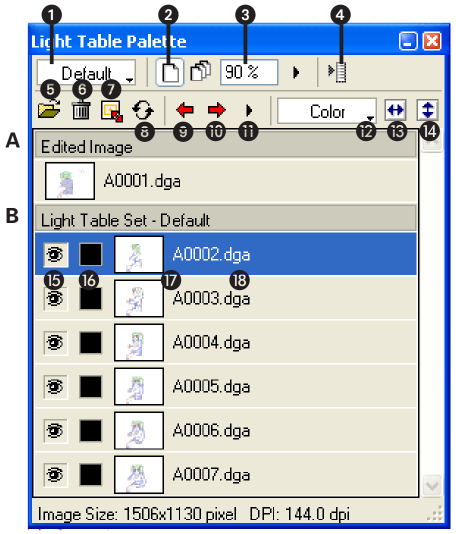
Edit Light Table Set dialog box


Edit Light Table Set
New Set
Add
Delete
Up
Down
Rename
OK
Cancel

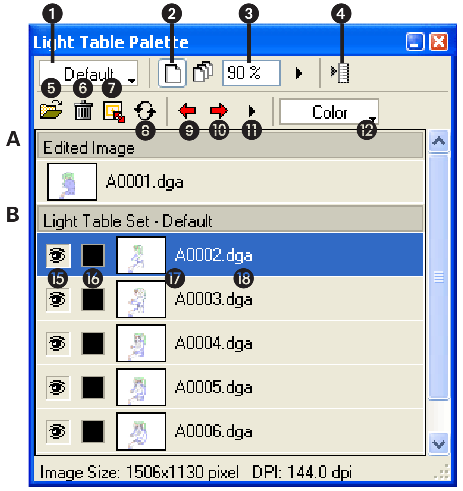
- **[Add]**
  Adds a new light table set named [New Set] to the list area at the left. Enter a name for it. The name is confirmed when you press [Enter/Return].
- **[Delete]**
  Deletes a light table set selected by clicking.
- **[Up]**
  Moves up in the list a light table set selected by clicking.
- **[Down]**
  Moves down in the list a light table set selected by clicking.
- **[Rename]**
  Allows you to change the name of a light table set selected by clicking.

- **[OK]**
  Confirms the settings and closes the dialog box.
- **[Cancel]**
  Cancels the settings and closes the dialog box.

Name of the Light Table Palette parts


❶
❷
❸
❹
Light Table Palette
Default
90 %
❺
❻
❼
Color
❽
❾
❿
⓫
⓬
⓭
⓮
A
Edited Image
A0001.dga
B
Light Table Set - Default
A0002.dga
⓯
⓰
⓱
⓲
A0003.dga
A0004.dga
A0005.dga
A0006.dga
A0007.dga
Image Size: 1506x1130 pixel DPI: 144.0 dpi

(STYLOS HD)


❶
❷
❸
❹
Light Table Palette
Default
90 %
❺
❻
❼
Color
❽
❾
❿
⓫
⓬
A
Edited Image
A0001.dga
B
Light Table Set - Default
A0002.dga
⓯
⓰
⓱
⓲
A0003.dga
A0004.dga
A0005.dga
A0006.dga
Image Size: 1506x1130 pixel DPI: 144.0 dpi

(PaintMan HD)

A [Edited Image]
Shows the image currently selected for editing.

B [Light Table Set]
Shows a list of images loaded to the currently selected (active) [Light Table Set].

❶ [Switch Light Table Set] pull-down menu
Clicking the icon shows a pull-down menu of registered light table sets from which you can switch sets by selecting. Select [None] when you not using any light table set.

❷ [Opacity] button
When ON, adjusts the individual opacity of the light table image that is currently selected (active light table image).

❸ [All Opacity] button
When ON, adjusts the opacity of all light table images.

The opacity applied for showing a light table image is the product of the individual opacity specified using the [Opacity] button and that specified in [All Opacity].
Example: When individual opacity is 50% and opacity for all is 50%
50% × 50%=25%
Image is shown with an opacity of 25%.

❹ [Show Light Table Menu] button
Shows the [Light Table] menu.

❺ [Load New Image...] button
Allows you to select the image to load to the light table.

❻ [Delete Loaded Image] button
Deletes a light table image from the light table.

❼ [Loaded Image View Settings...]
Opens the [Set Position] dialog box that allows you to configure the view position for the image shown in the [Cel] window.

❽ [Refresh Loaded Image] button
When the original light table image is edited, clicking [Refresh] reloads the image and updates the content to the edited image.

❾ [Previous Cel] button
Shows the previous cel.

❿ [Next Cel] button
Shows the next cel.

⓫ [Cel List] button
Shows a pull-down menu with a list of cels. Selecting a cel in the list shows the cel on the screen.

⓬ [Display Mode] pull-down menu
Shows a list of display modes composed of [Color], [Monotone], and [Halftone] from where you can select one.

⓭ [Flip Horizontal] button (Only STYLOS HD)
Shows the light table image flipped horizontally.

⓮ [Flip Vertical] button (Only STYLOS HD)
Shows the light table image flipped vertically.

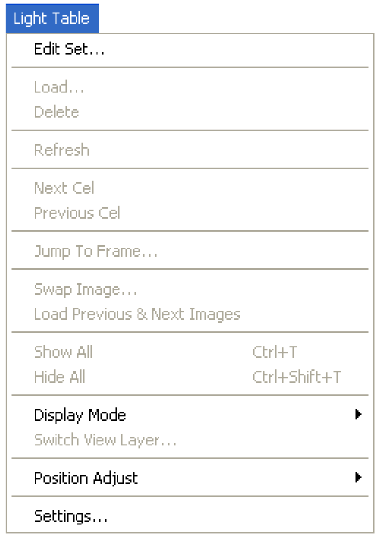
⓯ [Show/Hide Image] icon
This button allows you to toggle between show and hide image at every click.
The image is visible when shown with an eye icon.

⓰ [Image Color] icon
Opens the [Color Settings] dialog box that allows you to configure the view color for [Monotone] and [Halftone] when any of these is selected in [Display Mode].

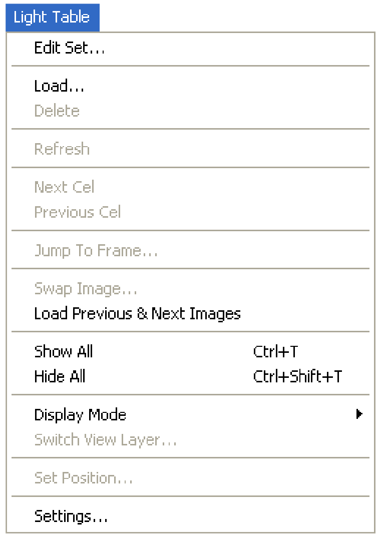
⓱ Thumbnail
Shows the light table images. The corresponding image on the light table becomes the [Edited Image] when double clicked on the thumbnail, swapping the current [Edited Image] that goes to the light table.

⓲ [Image Name] field
Opens the [Set Position] dialog box when double clicked. The dialog box allows you to configure the view position for the light table images.

Light Table menu


Light Table
Edit Set…
Load…
Delete
Refresh
Next Cel
Previous Cel
Jump To Frame…
Swap Image…
Load Previous & Next Images
Show All Ctrl+T
Hide All Ctrl+Shift+T
Display Mode
Switch View Layer…
Position Adjust
Settings…

(STYLOS HD)


Light Table
Edit Set…
Load…
Delete
Refresh
Next Cel
Previous Cel
Jump To Frame…
Swap Image…
Load Previous & Next Images
Show All Ctrl+T
Hide All Ctrl+Shift+T
Display Mode
Switch View Layer…
Set Position…
Settings…

(PaintMan HD)

- **[Edit Set...]**
  Opens the [Edit Light Table Set] dialog box that allows you to add, delete, reorder, and/or rename a table set.
- **[Load...]**
  Opens the [Open File] dialog box that allows you to select an image and load to the light table.
- **[Delete]**
  Deletes from the light table a light table image selected by clicking.
- **[Refresh]**
  When the original light table image is edited, clicking [Refresh] reloads the image and updates the content to the edited image.
- **[Next Cel]**
  Shows the cel next to the one selected in the light table set.
- **[Previous Cel]**
  Shows the cel previous to the one selected in the light table set.
- **[Jump To Frame...]**
  Shows the cel specified numerically or with the slider in the dialog box.
- **[Swap Image...]**
  Swaps the edited image with an image selected from the light table set.
- **[Load Previous & Next Images]**
  Loads images previous and next to the currently edited image.

- **[Show All]**
  Shows all light table images.
- **[Hide All]**
  Hides all light table images.
- **[Display Mode]**
  Shows a list of display modes composed of [Color], [Monotone], and [Halftone] from where you can select one.
- **[Switch View Layer...]**
  Shows a dialog box with check boxes that allows you to select the layers to view.

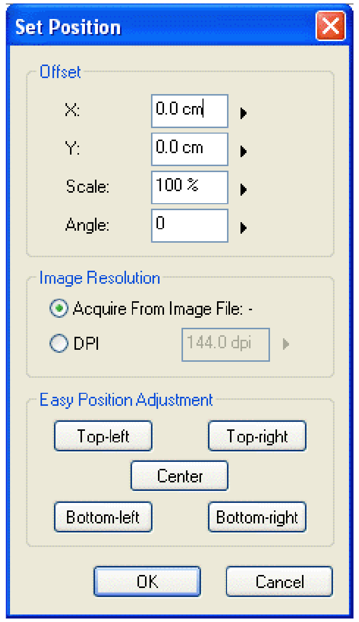
- **[Position Adjust] (Only STYLOS HD)**
  [Numeric...]
  Shows the [Set Position] dialog box that allows you to adjust the view position for the light table images precisely.
  [Flip Horizontal]
  Shows the light table image flipped horizontally.
  [Flip Vertical]
  Shows the light table image flipped vertically.
  [Reset Scale]
  [Reset Rotation]
  [Reset Scale & Rotation]
  Each of the menu items above resets settings configured using the [Light Table] tool and the [Set Position] dialog box.
  [Move Image To Middle Position]
  Moves the edited image to the middle of two images selected from the light table set.
  [Collect in a Specified Origin Point]
  Moves the edited image to an anchor point for the multiple images selected from the light table set (specified with a mouse click).

- **[Set Position...] (Only PaintMan HD)**
  Shows the [Set Position] dialog box that allows you to adjust the view position for the light table images precisely.

- **[Settings...]**
  Shows the [Light Table Settings] dialog box that allows you to specify various light table options.

Set Position dialog box

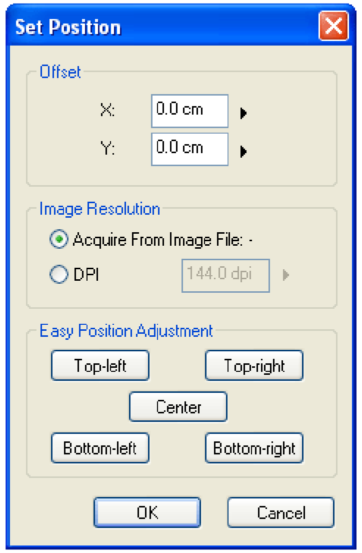
To open the dialog box, select [Position Adjust] → [Numeric...] from the Light Table menu.



Set Position
Offset
Image Resolution
Easy Position Adjustment
Top-left
Top-right
Center
Bottom-left
Bottom-right
OK
Cancel

X: 0.0 cm
Y: 0.0 cm
Scale: 100 %
Angle: 0
● Acquire From Image File: -
○ DPI 144.0 dpi

Set Position dialog box
(STYLOS HD)



Set Position
Offset
Image Resolution
Easy Position Adjustment
Top-left
Top-right
Center
Bottom-left
Bottom-right
OK
Cancel

X: 0.0 cm
Y: 0.0 cm
● Acquire From Image File: -
○ DPI 144.0 dpi

Set Position dialog box
(PaintMan HD)

[Offset]
Enter [X] (horizontal axis), [Y] (vertical axis), [Scale] (only STYLOS HD), and [Angle] (only STYLOS HD) numerically or using the slider. These data are used to position the light table images precisely.

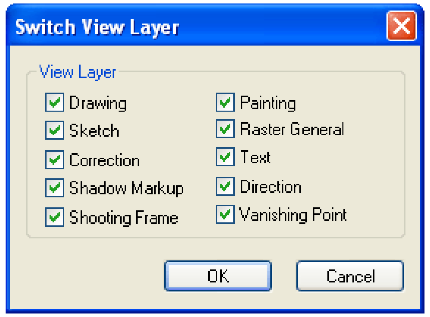
[Image Resolution]
Select either [Acquire From Image File] or [DPI] using the radio buttons.

[Easy Position Adjustment]
Click either of the [Top-left], [Top-right], [Center], [Bottom-left], or [Bottom-right] button. The Light Table image will be positioned there.

- **[OK]**
  Confirms the settings and closes the dialog box.
- **[Cancel]**
  Cancels the settings and closes the dialog box.

Switch View Layer dialog box

To open the dialog box, select [Switch View Layer...] from the Light Table menu.



Switch View Layer
View Layer
OK
Cancel

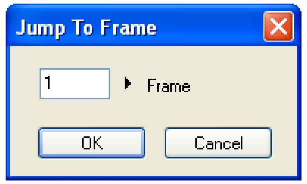
☑ Drawing
☑ Sketch
☑ Correction
☑ Shadow Markup
☑ Shooting Frame
☑ Painting
☑ Raster General
☑ Text
☑ Direction
☑ Vanishing Point

- **[View Layer]**
  Select the layer(s) to show by selecting the corresponding check box.

- **[OK]**
  Confirms the settings and closes the dialog box.
- **[Cancel]**
  Cancels the settings and closes the dialog box.

Jump To Frame dialog box

To open the dialog box, select [Jump To Frame...] from the Light Table menu.



Jump To Frame
OK
Cancel

1 Frame

- **[Frame]**
  Enter the frame to show.

- **[OK]**
  Confirms the settings and closes the dialog box.
- **[Cancel]**
  Cancels the settings and closes the dialog box.

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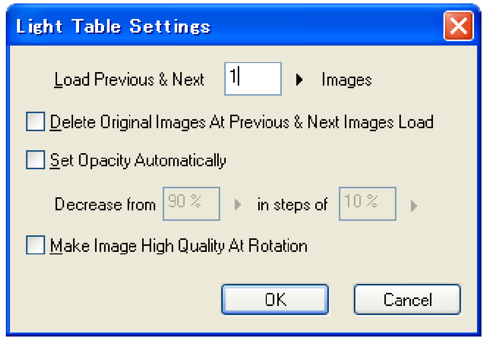
Light Table Settings dialog box

To open the dialog box, select [Settings...] from the Light Table menu.



Load Previous & Next 1 Images

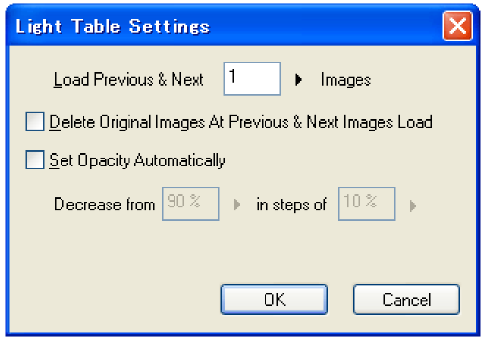
☐ Delete Original Images At Previous & Next Images Load

☐ Set Opacity Automatically

Decrease from 90 % in steps of 10 %

☐ Make Image High Quality At Rotation

(STYLOS HD)



Load Previous & Next 1 Images

☐ Delete Original Images At Previous & Next Images Load

☐ Set Opacity Automatically

Decrease from 90 % in steps of 10 %

(PaintMan HD)

- **[Load Previous & Next n Images]**
  Allows you to specify the number of images to load (1-10) using [Load Previous&Next Images] under the [Light Table] menu.
- **[Delete Original Images At Previous & Next Images Load]**
  Deletes the previously loaded images when [Load Previous&Next Images] under the [Light Table] menu is selected.
- **[Set Opacity Automatically]**
  [Decrease from n% in step of n%]
  The opacity of each of the images loaded to the same light table set is specified automatically. The maximum value and step in which the opacity will change are parameters you can specify.
- **[Make Image High Quality At Rotation] (Only STYLOS HD)**
  Allows you to view the rotated light table set image with high quality.

- **[OK]**
  Confirms the settings and closes the dialog box.
- **[Cancel]**
  Cancels the settings and closes the dialog box.

RETAS!PRO

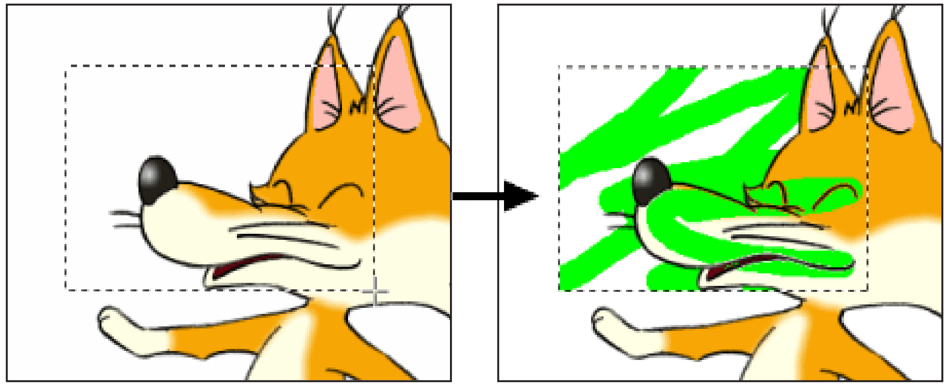
Chapter 10

Selection

Selection

What is a selection?

Selection is an area specified (enclosed in dashed line) using the [Selection] tool. With a selection, the scope of a command or a tool becomes limited to the selection.



Tips

A selection can be made using the [Selection] tool on the [Tool Palette], the [Edit] menu in the menu bar (STYLOS HD), or the [Selection] menu (TraceMan HD, PaintMan HD).

- Pressing the [Shift] key before clicking changes the selection mode to [Add to Selection].
- Pressing the [Alt] key before clicking changes the selection mode to [Subtract from Selection].
- Pressing the [Shift] + [Alt/Opt] keys before clicking changes the selection mode to [Intersect with Selection].

- Pressing the [Shift] key when dragging the shape fixes the aspect ratio.
- Pressing the [Shift] key when rotating, fixes the angle to 45 degrees.
- Pressing the [Shift] key when moving limits the movement direction to horizontal or vertical.
- Pressing the [Shift] key when [Polyline] is selected changes the selection tool to [Lasso].
- Pressing the [Shift] key when [Lasso] is selected changes the selection tool to [Polyline].

Basic operations using Selection

Basic operations related to selection are grouped under [Edit] (STYLOS HD) or under [Selection] (TraceMan HD, PaintMan HD) in the menu bar.

Select All (entire layer) [Ctrl/Cmd] + [A]

Selects the entire image (layer).

Deselect [Ctrl/Cmd] + [D]

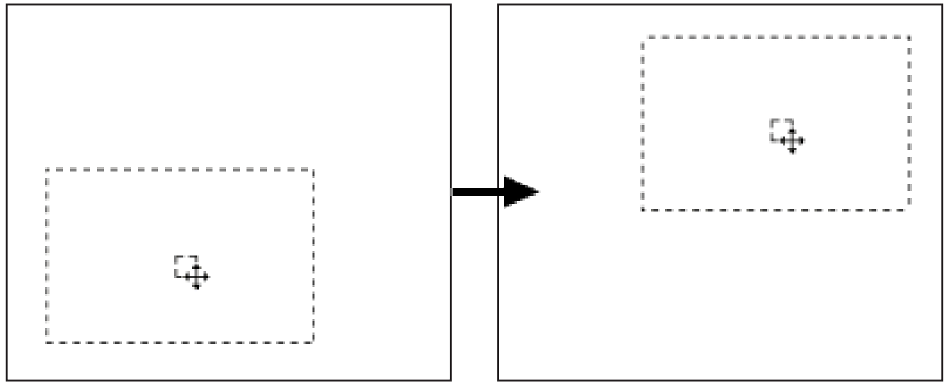
Cancels the current selection and nothing remains selected thereafter.

Reverse Selection [Ctrl/Cmd] + [Shift] + [I]

Inverts a selection.
Currently unselected areas become selected and vice versa.

Move Selection

Placing the mouse pointer inside a selection when the [Selection] tool is selected changes the mouse pointer shape, and allows you to move the selection by dragging.



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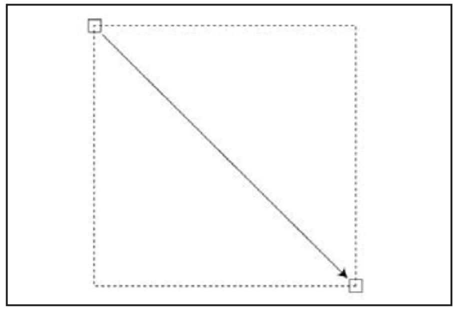
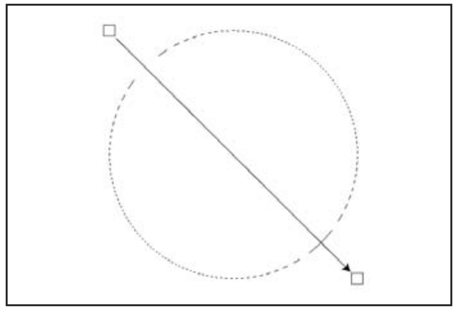
Rectangle Selection tool M

Allows you to select a rectangular or elliptical area. The selection is shaped around the line (diagonal) you drew by dragging. The [Tool Options Palette] allows you to toggle between [Rectangle] and [Ellipse].

☐ Rectangular selection



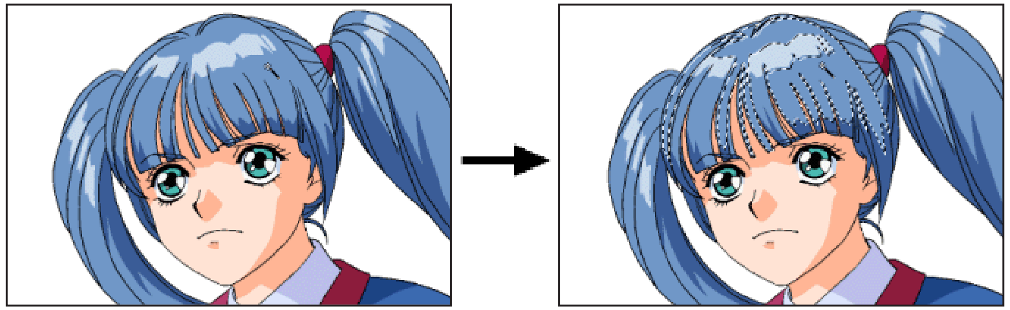
○ Elliptical selection



Drag with the [Shift] key held down to draw a rectangle or ellipse.

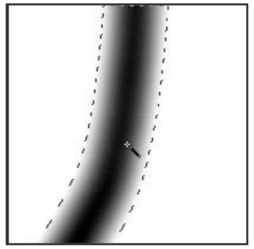
Magic Wand tool W

Allows you to select all connected parts having the same color as the clicked pixel.



Using [Magic Wand] on [Gray Paint Layer]

On the [Gray Paint Layer], the tool selects the stretch of area of the same color as the clicked gray line.



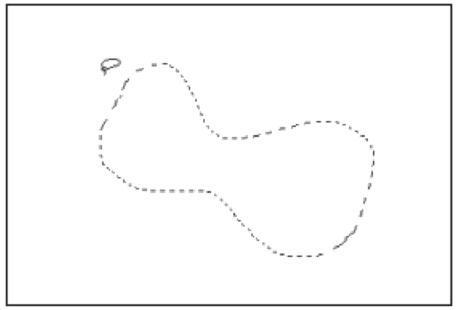
Lasso tool R

Allows you to select an area you bordered by moving the mouse pointer freely from a starting point (the first clicked point).

The [Tool Options Palette] allows you to toggle between [Lasso] and [Polyline].

Lasso

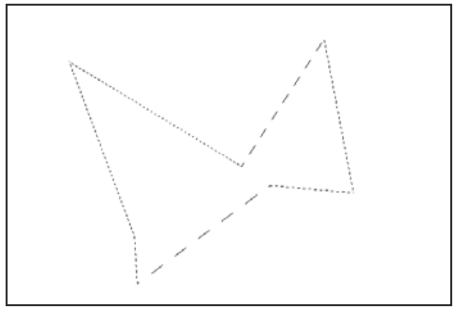
The selection is the area you enclosed by dragging in one freehand trace.



If you stop dragging leaving an open segment in the selection border, that segment is drawn as a straight line that goes from the point you stopped to the starting point.

Polyline

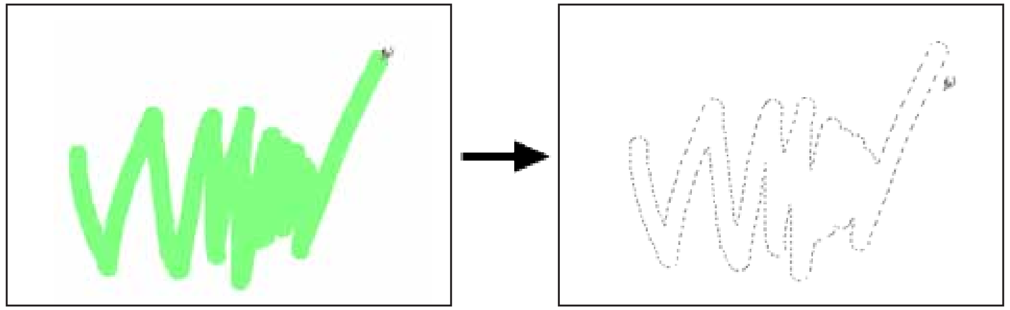
The selection is the area enclosed by a polygon whose vertices are determined by each mouse click you did while moving the selection tool.



If you double click leaving an open segment in the selection border, that segment is drawn as a straight line that goes from the point you double clicked to the starting point.

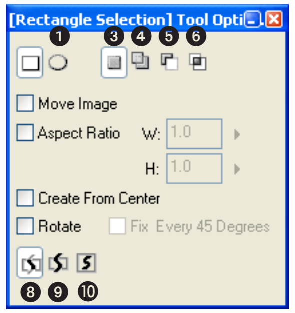
Selection Brush tool Y

The selection is the area you traced with a brush-like pointer.

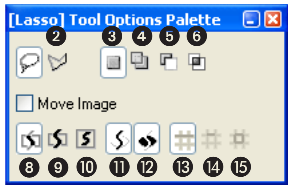


[Selection] tool options palette

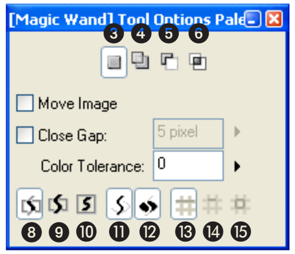
The [Tool Options Palette] under the [Window] menu allows you to configure the detailed settings for the [Selection] tool.



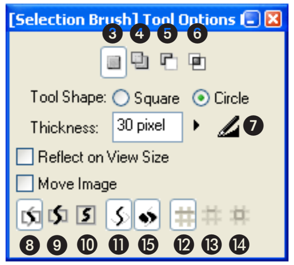
☐ Move Image
☐ Aspect Ratio W: 1.0
H: 1.0
☐ Create From Center
☐ Rotate ☐ Fix Every 45 Degrees



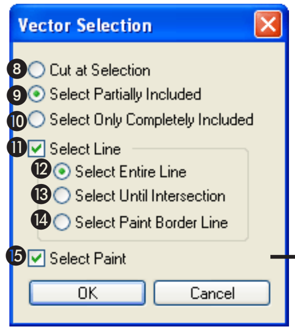
☐ Move Image



☐ Move Image
☐ Close Gap: 5 pixel
Color Tolerance: 0



Tool Shape: ○ Square ● Circle
Thickness: 30 pixel
☐ Reflect on View Size
☐ Move Image



○ Cut at Selection
● Select Partially Included
○ Select Only Completely Included
☑ Select Line
● Select Entire Line
○ Select Until Intersection
○ Select Paint Border Line
☑ Select Paint

Opens when [Settings] → [Vector Selection...] is selected from the [Edit] menu.

❶ **Ellipse (common)**
Makes an elliptical selection.

❷ **Polyline (common)**
Makes a polygonal selection.

❸ **New Selection (common)**
This is the normal setting where a new selection cancels the existing one.

❹ **Add to Selection (common)**
This option allows you to add a selection to the existing one so that you can edit multiple parts simultaneously. Making a new selection overlapping an existing one joins the two in a new selection.
Holding down the [Shift] key when a different tool option is selected changes the selection mode to this one for that time.

❺ **Substract From Selection (common)**
Making a new selection overlapping an existing one cancels the overlapped part from the existing selection.
Holding down the [Alt/Opt] key when a different tool option is selected changes the selection mode to this one for that time.

❻ **Intersect with Selection (common)**
Making a new selection overlapping an existing one results in a new selection with only the overlapped part.

Move Image (common)
Moves the image on the selected plane along with the selection when moving the selection by dragging.

- **[Aspect Ratio] (Only rectangle selection tool)**
  Allows you to specify and fix the height-to-width ratio for rectangular and elliptical selections.
- **[Create From Center] (Only rectangle selection tool)**
  Normally, the starting point for drawing the border is the upper-left corner. Selecting this option, moves the starting point to the center.
- **[Rotate] (Only rectangle selection tool)**
  Allows you to rotate the rectangle or ellipse by moving the mouse pointer once the sizes are fixed, and confirm by clicking at the desired position.
- **[Fix Every 45 Degrees] (Only rectangle selection tool)**
  This is an option for [Rotate]. Fixes the rotation to units of 45 degrees.
- **[Close Gap] (Only magic wand tool)**
  Makes the selection to ignore small gaps in the line(s) that are smaller than a specified tolerance.
- **[Color Tolerance] (Only magic wand tool)**
  The higher the value, the wider the range of colors considered the same.
- **[Thickness] (Only selection brush tool)**
  Allows you to specify the thickness of the brush-like pointer.
- **[Reflect Pen Pressure on Thickness] (Only selection brush tool)**
  Reflects the graphics tablet pen pressure in the line thickness.

❼ **[Reflect on View Size] (Only selection brush tool)**
Shows the view in the same size as in 100% view even when the screen view is scaled.

❽ **[Cut at Selection] (Only vectors)**
Deletes the selected parts.

❾ **[Select Partially Included] (Only vectors)**
Selects also those included in the selection partially.

❿ **[Select Only Completely Included] (Only vectors)**
Selects those included completely in the selection.

⓫ **[Select Line] (Only vectors with PaintMan HD)**
When OFF, excludes lines (Outline plane, Color Separation Line plane) from a selection. This option is convenient for selecting only color when working with multiple planes.

⓬ **[Select Entire Line] (Only vectors with PaintMan HD)**
Selects the entire line.

⓭ **[Select Until Intersection] (Only vectors with PaintMan HD)**
Selects the part of a(the) line(s) up to the intersection(s) with another.

⓮ **[Select Paint Border Line] (Only vectors with PaintMan HD)**
Selects the color borders.

⓯**[Select Paint] (Only vectors with PaintMan HD)**
When OFF, excludes colors (Coloring Plane). This option is convenient for selecting only lines when working with multiple planes.

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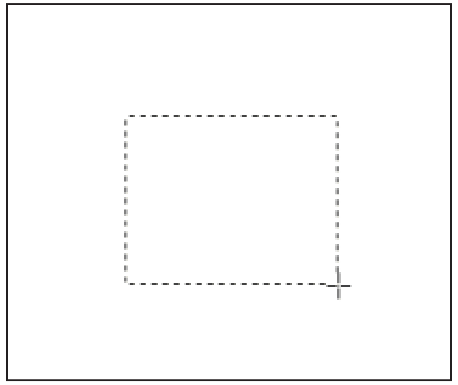
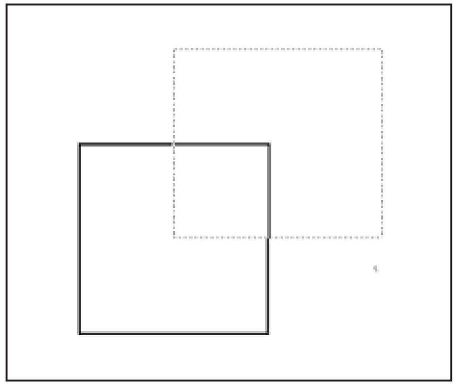
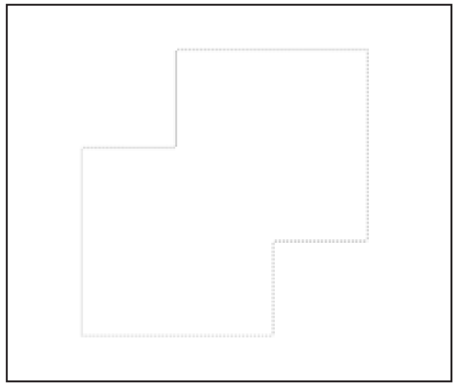


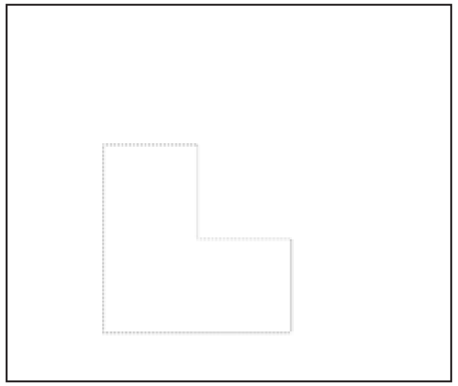
- [New Selection] (common)



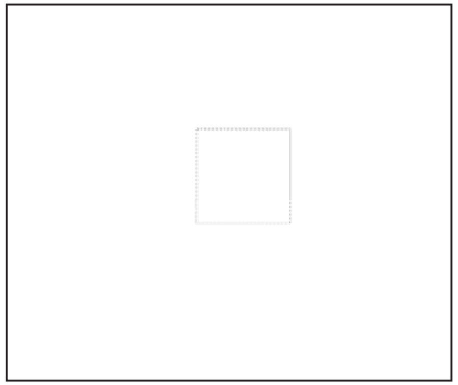
- Original image



- [Add to Selection] (common)



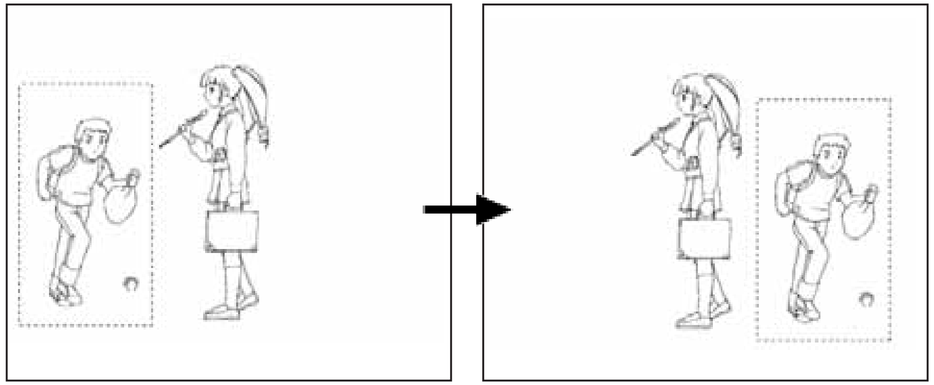
- [Subtract from Selection] (common)



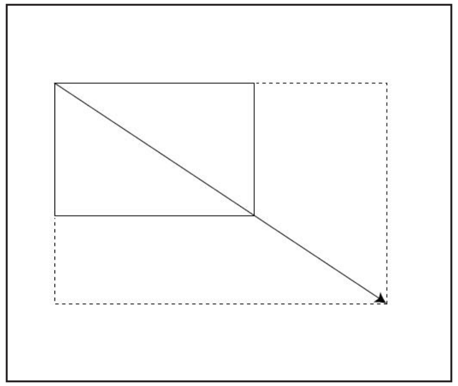
- [Intersect with Selection] (common)

Tips

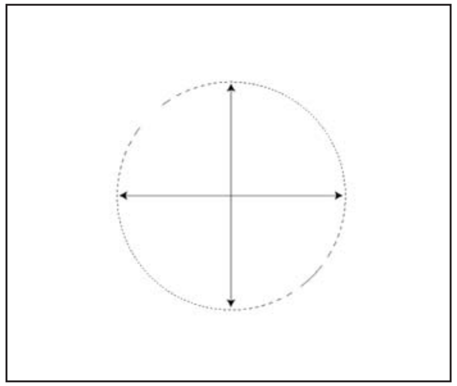
- Dragging with the [Shift] key held down draws a rectangle or circle.
- Dragging with the [Ctrl/Cmd] key held down draws a rectangle or circle centered at the point where you placed the mouse pointer first.



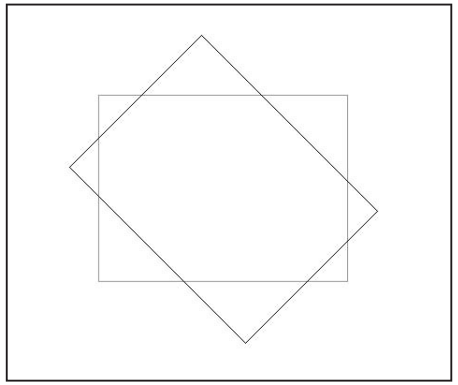
- [Move Image] (common)



- [Aspect Ratio] (Only rectangle selection tool)



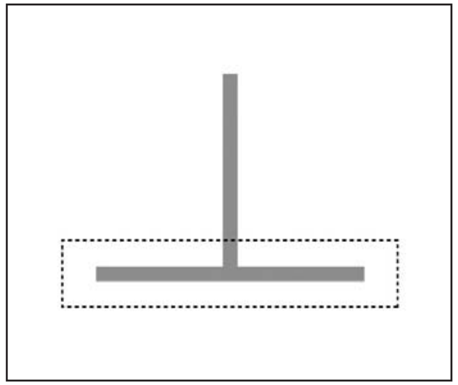
- [Create From Center] (Only rectangle selection tool)



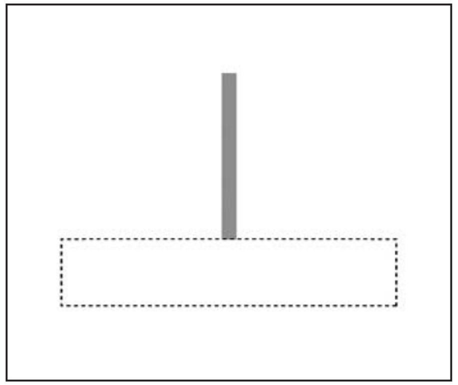
- [Rotate] (Only rectangle selection tool)

Tips

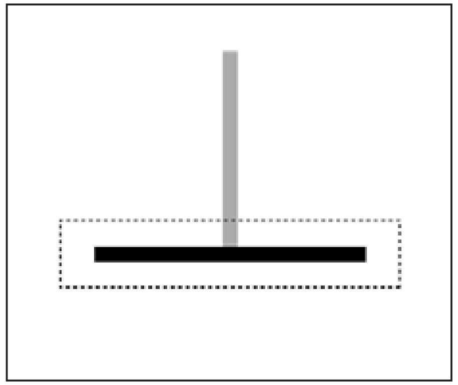
- The [Color Locator] (only TraceMan HD and PaintMan HD) allows you to measure the position of the selection as well as its size.



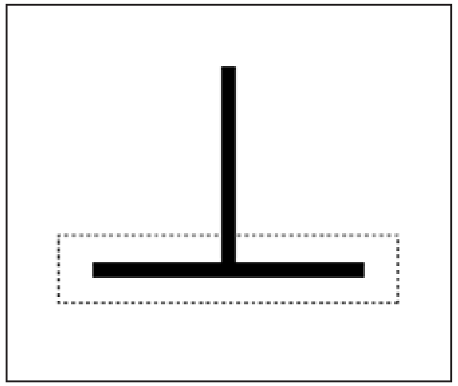
- Original image



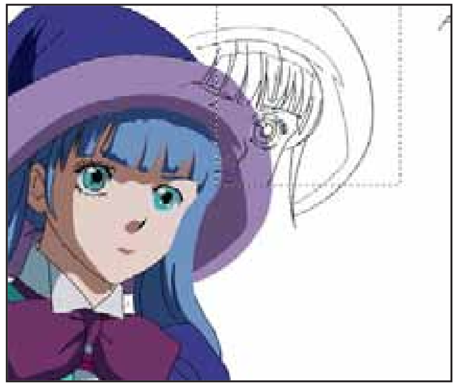
- [New Selection] (only vectors)



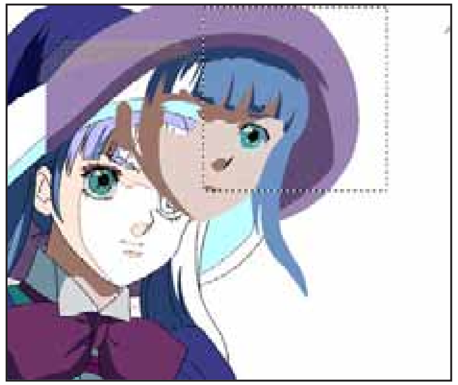
- [Add to Selection] (only vectors)



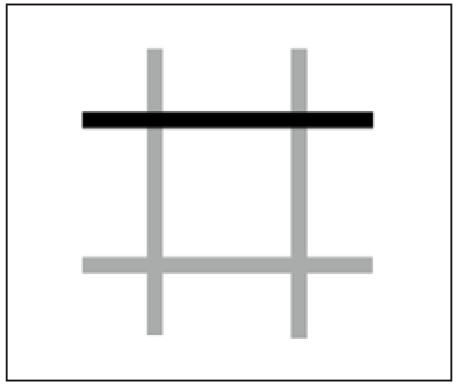
- [Subtract from Selection] (only vectors)



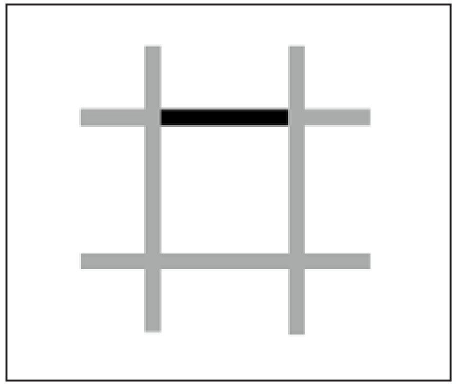
- [Select Paint] OFF
  (Only vectors with PaintMan HD)



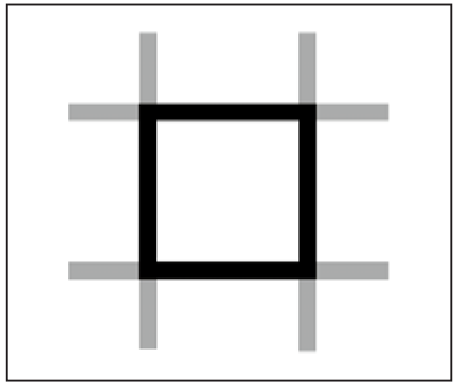
- [Select Line] OFF
  (Only vectors with PaintMan HD)



- [Select Entire Line]
  (only when [Select Line] for vectors is ON)



- [Select Until Intersection]
  (only when [Select Line] for vectors is ON)



- [Select Paint Border Line]
  (only when [Select Line] for vectors is ON)

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Selections using foreground color

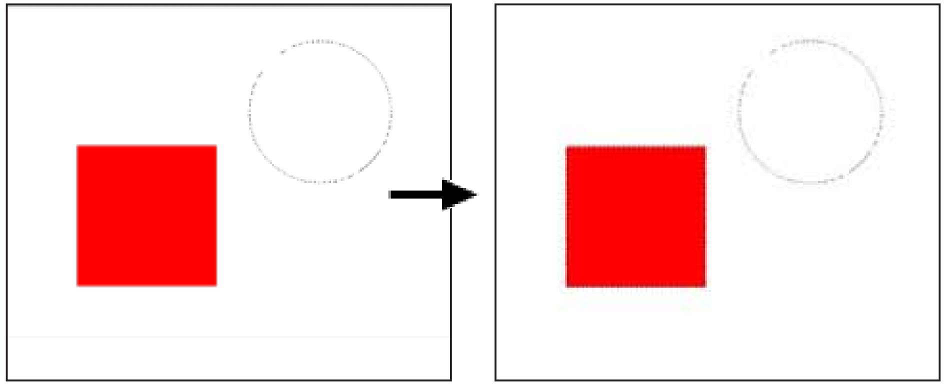
Operations related to selections that make use of the foreground color are grouped under [Selection].

Select Foreground Color [Ctrl/Cmd] + [U]

Selects all parts drawn with the current foreground color.

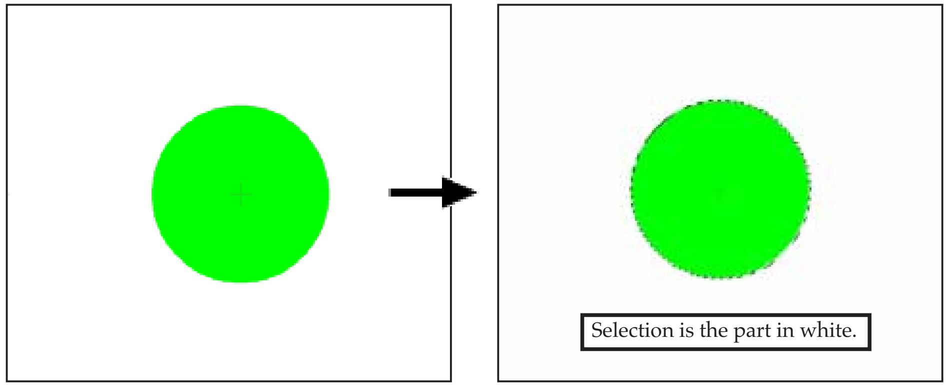
Add Foreground Color to Selection [Ctrl/Cmd] + [Shift] + [U]

Adds the parts drawn with the current foreground color to the current selection.



Select Other Than Foreground Color [Ctrl/Cmd] + [Y]

Selects all parts drawn with other than the current foreground color.



Selection is the part in white.

Tips

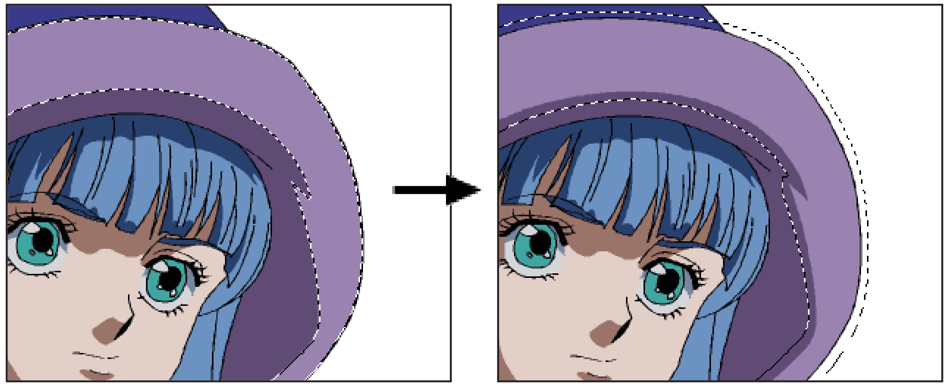
Selecting [Add Foreground Color to Selection] when a "part drawn with the current foreground" has a part in common with the "current selection" creates a selection that is addition of both.

Expanding/Reducing a selection

The [Expand Selection] and [Reduce Selection] allows you to select whether to [Expand Selection] or [Reduce Selection].

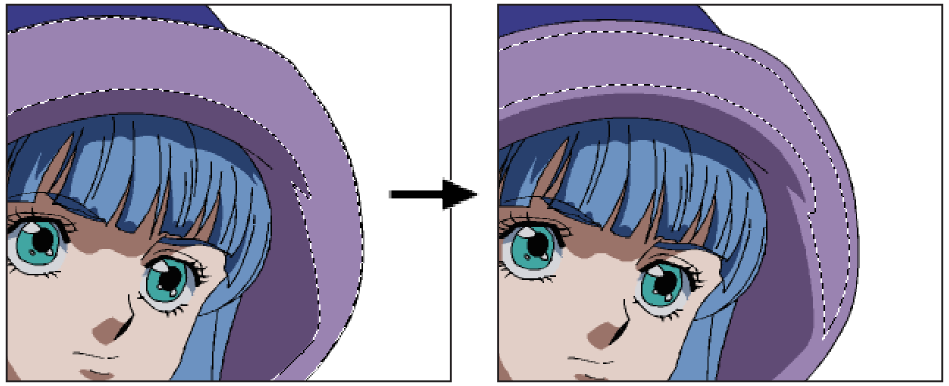
Expanding a selection

Expands the current selection by a specified width.



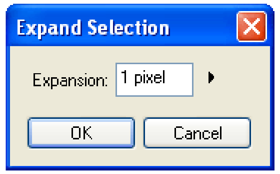
Reducing a selection

Reduces the current selection by a specified width.



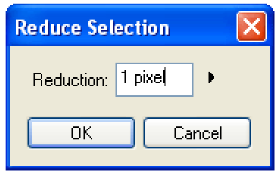
Expand Selection/Reduce Selection dialog box

Selecting the menu item shows the following dialog box. Specify either [Expansion] or [Reduction] as appropriate.



Expand Selection

Expansion: 1 pixel



Reduce Selection

Reduction: 1 pixel

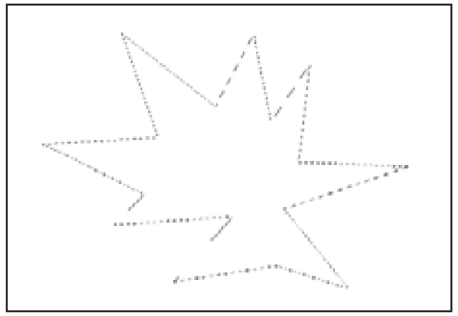
Saving a selection

Converting a selection to layer (Saving)

The procedure for converting the selection into a [Selection Layer] and saving is as follows.

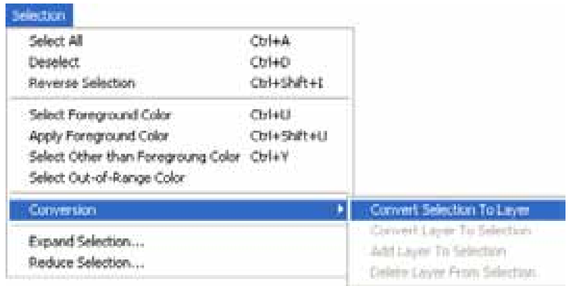
1. Select the target selection.

Select the selection you want to save.



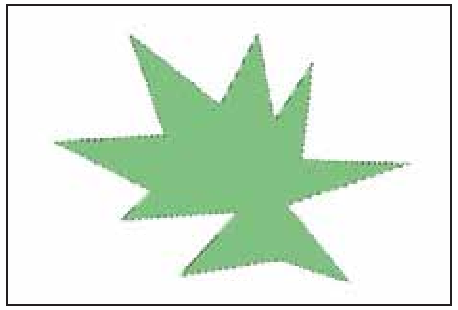
2. Select the command.

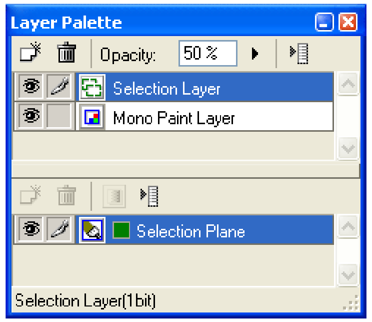
Select [Conversion] → [Convert Selection To Layer] from the [Selection] menu.


Selection
Select All Ctrl+A
Deselect Ctrl+D
Reverse Selection Ctrl+Shift+I
Select Foreground Color Ctrl+U
Apply Foreground Color Ctrl+Shift+U
Select Other than Foregroung Color Ctrl+Y
Select Out-of-Range Color
Conversion
Expand Selection...
Reduce Selection...
Convert Selection To Layer
Convert Layer To Selection
Add Layer To Selection
Delete Layer From Selection

3. Completion

A new [Selection Layer] and [Selection Plane] are created and added to the [Layer Palette].



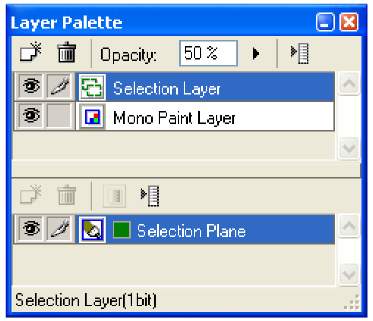

Layer Palette
Opacity: 50 %
Selection Layer
Mono Paint Layer
Selection Plane
Selection Layer(1bit)

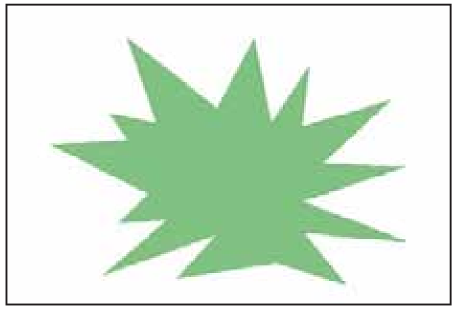
Converting a layer to selection (Loading)

The procedure to load a [Selection Layer] and convert to a selection is as follows.

1. Select the selection layer.

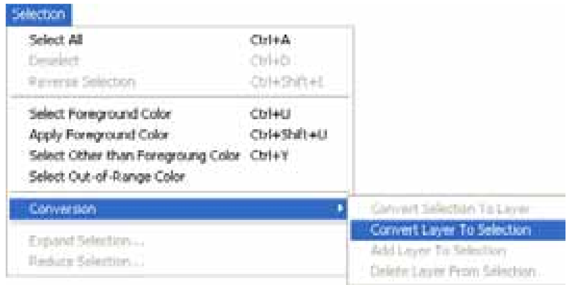
Select the target [Selection Layer] from the [Layer Palette] then open the saved selection.


Layer Palette
Opacity: 50 %
Selection Layer
Mono Paint Layer
Selection Plane
Selection Layer(1bit)



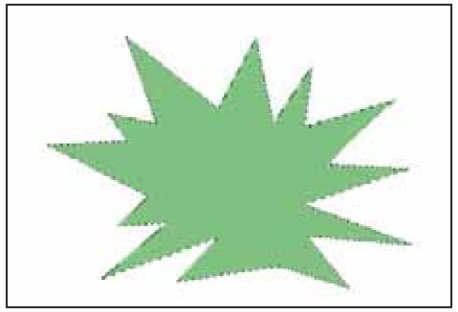
2. Select the command.

Select [Conversion] → [Convert Layer To Selection] from the [Selection] menu.


Selection
Select All Ctrl+A
Deselect Ctrl+D
Reverse Selection Ctrl+Shift+I
Select Foreground Color Ctrl+U
Apply Foreground Color Ctrl+Shift+U
Select Other than Foregroung Color Ctrl+Y
Select Out-of-Range Color
Conversion
Expand Selection...
Reduce Selection...
Convert Selection To Layer
Convert Layer To Selection
Add Layer To Selection
Delete Layer From Selection

3. Completion

A selection is created based on the colored area of the [Selection Layer].



Tips

For selecting a particular selection from a selection layer with multiple selections, use [Shift] + [Magic Wand].

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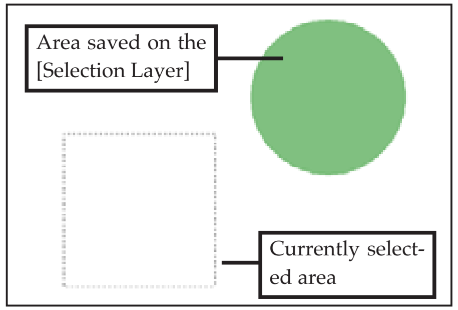
Adding a selection layer to a selection

The procedure for adding a selection from a [Selection Layer] to a selection in the [Cel] window is as follows. (With [Convert Layer To Selection], the existing selection is overwritten.)

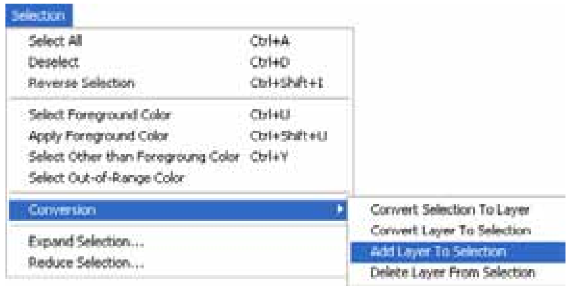
1. Select the selection layer.

Select [Selection Layer] from the [Layer Palette] and open the saved selection you want to add to the selected image.


Area saved on the [Selection Layer]
Currently selected area

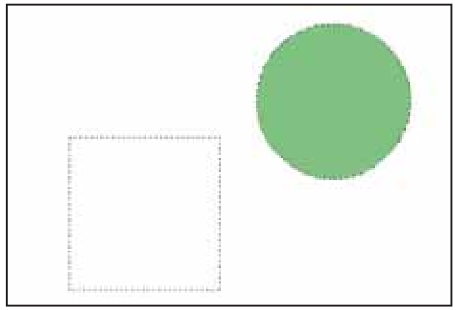
2. Select the command.

Select [Conversion] → [Add Layer To Selection] from the [Selection] menu.


Selection
Select All Ctrl+A
Deselect Ctrl+D
Reverse Selection Ctrl+Shift+I
Select Foreground Color Ctrl+U
Apply Foreground Color Ctrl+Shift+U
Select Other than Foregroung Color Ctrl+Y
Select Out-of-Range Color
Conversion
Expand Selection...
Reduce Selection...
Convert Selection To Layer
Convert Layer To Selection
Add Layer To Selection
Delete Layer From Selection

3. Completion

A selection is created based on the colored area of the [Selection Layer] and added to the existing selection.



Tips

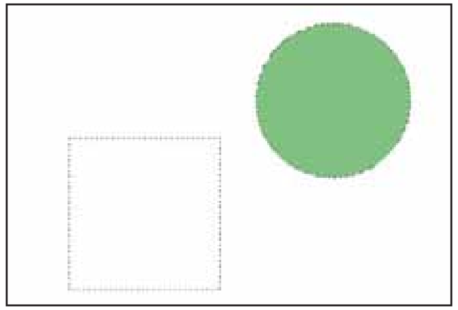
If the image on the [Selection Layer] has a part in common with the existing selection, the created selection is the addition of both.

Deleting a selection layer from a selection

The procedure for deleting the part that overlaps with the colored area of the [Selection Layer] from the selection in the [Cel] window is as follows.

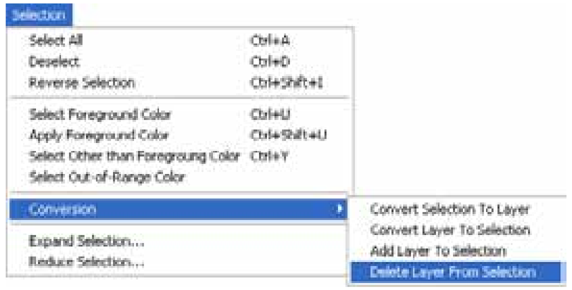
1. Select the selection layer.

Select [Selection Layer] from the [Layer Palette] and open the saved selection you want to add to the selected image.



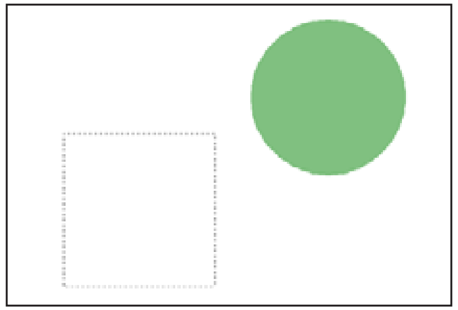
2. Select the command.

Select [Conversion] → [Delete Layer From Selection] from the [Selection] menu.


Selection
Select All Ctrl+A
Deselect Ctrl+D
Reverse Selection Ctrl+Shift+I
Select Foreground Color Ctrl+U
Apply Foreground Color Ctrl+Shift+U
Select Other than Foregroung Color Ctrl+Y
Select Out-of-Range Color
Conversion
Expand Selection...
Reduce Selection...
Convert Selection To Layer
Convert Layer To Selection
Add Layer To Selection
Delete Layer From Selection

3. Completion

The part in the existing selection that overlaps with the colored area of the [Selection Layer] is deleted.



Tips

If the image on the [Selection Layer] has a part in common with the existing selection, the created selection is the part that remains from the deduction of the parts in common.

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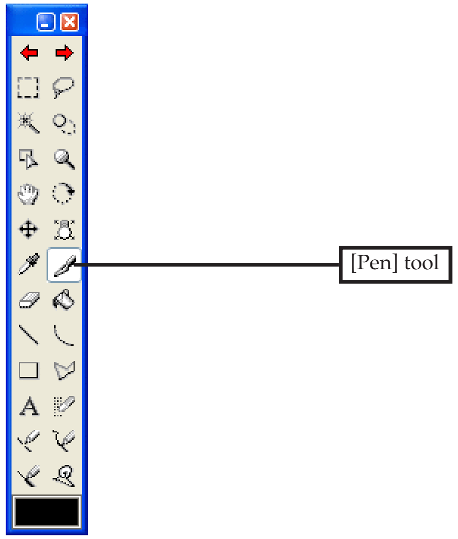
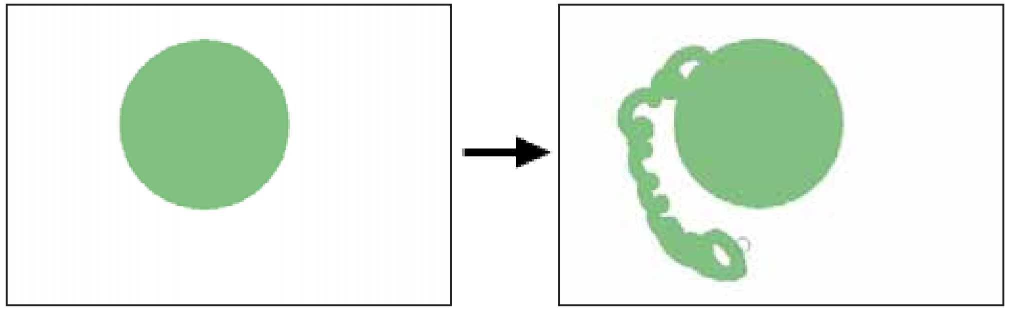
Drawing a selection

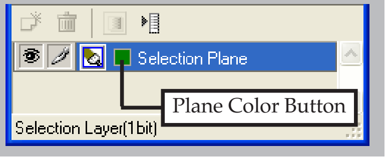
Saved selections can be edited. That is, you can expand a selection saved on the [Selection Layer] by drawing with the [Pen] tool, for example, or reduce by erasing with the [Eraser] tool.





Tips

Foreground color of a [Selection Layer] is changeable.
For changing the color, click the [Plane Color] button for the [Selected Plane] on the [Layer Palette] to open the [Color Settings] or [Color] dialog box that allows you to select the color.



Cutting and Pasting

Basic operations using Cut & Paste

Basic operations related to Cut & Paste are grouped under the [Edit] menu.

Cut [Ctrl/Cmd] + [X]

Cuts the image in a selection (deletes the original image and sends it to the buffer).
The cut image is sent to the copy buffer (clipboard). This image can be pasted to the [Cel] window using the [Paste] command.
The [Cut] command can only cut images on the current layer.

Copy [Ctrl/Cmd] + [C]

Copies the image in a selection (keeps the original image and sends it to the buffer).
The [Copy] command can only copy images on the current layer.

Paste [Ctrl/Cmd] + [V]

Pastes the image in the buffer stored by a [Cut]/[Copy] command, or another application to the [Cel] window.
An image pasted when the [Selection] tool is selected can be moved by drag and drop.
An image in the buffer can be pasted any number of times until it is overwritten by another.
The [Paste] command can only paste to the current layer.

The RETAS!PRO paste function pastes an image with its position (coordinates) kept. However, this is valid only when pasting within RETAS!PRO.

Paste to Selected Plane [Ctrl/Cmd] + [Shift] + [V]

Pastes an image in the buffer stored by a [Cut]/[Copy] command, or another application to a [Plane] on the [Layer Palette] you selected.
The [Paste to Selected Plane] command pastes to the current plane.

Convert & Paste [Ctrl/Cmd] + [Alt/Opt] + [V]

Converts an image in the buffer stored by a [Cut]/[Copy] command, or another application and pastes it to a new layer or a new plane.

Clear [Delete]

Deletes the image in the selection.
The [Clear] command is valid only on the current layer.

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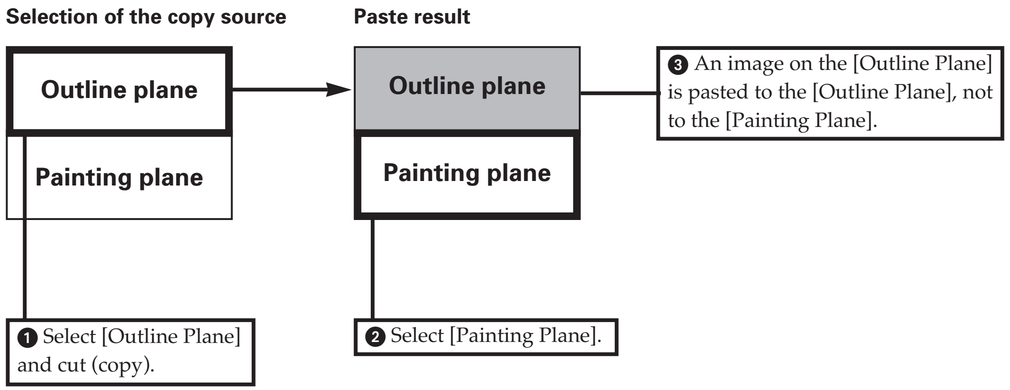
Cut & Paste Specifications in RETAS!PRO HD

The RETAS!PRO [Copy] command also stores the layer and plane attributes of the original (copy source) image. So, even if a different layer and plane is selected in the paste destination, paste is done to a layer and plane having the same attribute as the source.

Operation flow example


Selection of the copy source
Paste result
Outline plane
Painting plane
Outline plane
Painting plane

③ An image on the [Outline Plane] is pasted to the [Outline Plane], not to the [Painting Plane].

① Select [Outline Plane] and cut (copy).

② Select [Painting Plane].

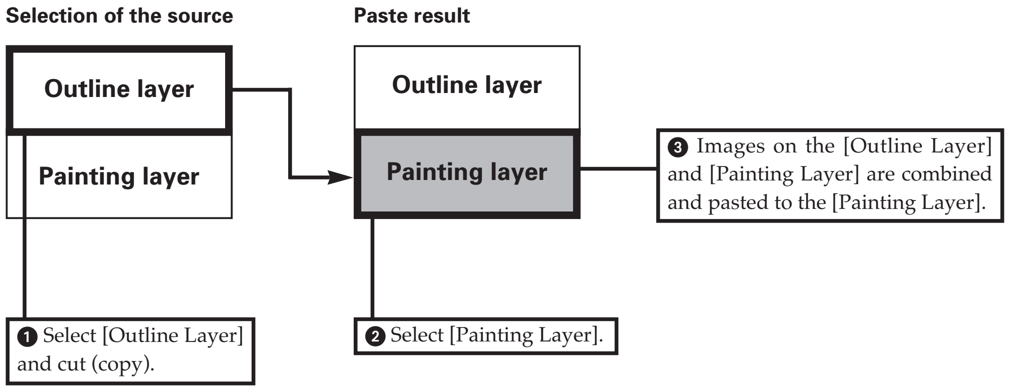
Tips

- To paste to a layer and plane with different attributes in a condition like the indicated above, see "Pasting to a specified layer" in this chapter. When pasting an outline plane drawing with gray line, the pixels of the source and destination images are compared, and pasted using the darker one. This is as selecting [Darken Blend] in CoreRETAS or Photoshop. Therefore, if the image includes parts where the gray line color (reference color) has been changed using the [Color Replace] tool, the finish of parts where gray lines overlap may have poor quality.
- When cutting and pasting gray lines, do the cut and paste with all gray lines having the same color (reference color) and use [Color Replace] tool afterwards to keep quality.

Reference: Cut & Paste Specifications in Ver. 5

In RETAS!PRO Ver. 5, paste is done to the specified layer irrespective of the copy source image attributes.

Operation flow example


Selection of the source
Paste result
Outline layer
Painting layer
Outline layer
Painting layer

③ Images on the [Outline Layer] and [Painting Layer] are combined and pasted to the [Painting Layer].

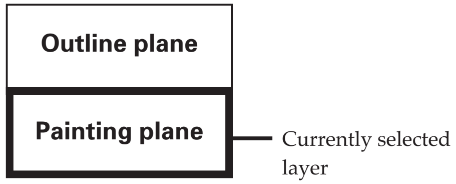
① Select [Outline Layer] and cut (copy).

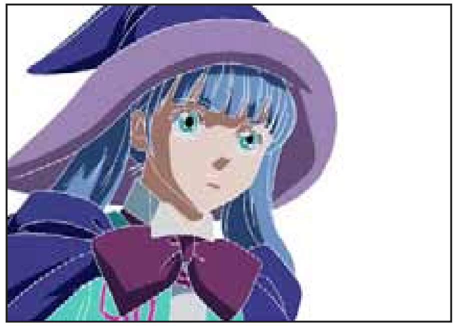
② Select [Painting Layer].

Selecting a copy source layer in RETAS!PRO HD

The logic for storing an image to the copy buffer when doing a copy in RETAS!PRO HD is as follows.

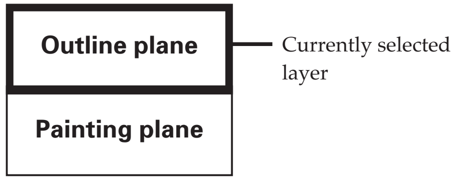
If [Painting Plane] is selected, the image is stored to the copy buffer with the [Painting Plane] as the only copy destination.

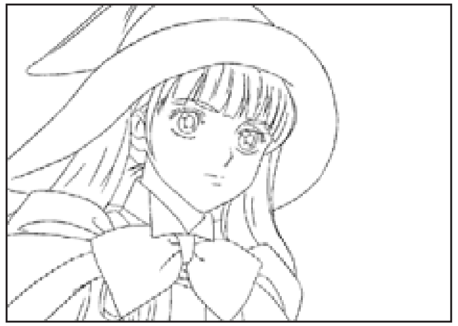

Outline plane
Painting plane
Currently selected layer



[Painting Plane] image

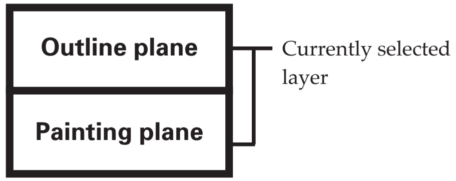
If [Outline Plane] is selected, the image is stored to the copy buffer with the [Outline Plane] as the only copy destination.

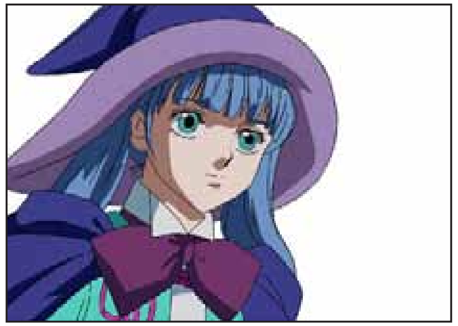

Outline plane
Currently selected layer
Painting plane



[Outline Plane] image

If both [Painting Plane] and [Outline Plane] are selected, the image is stored to the copy buffer with the [Painting Plane] and [Outline Plane] as copy destinations.


Outline plane
Currently selected layer
Painting plane

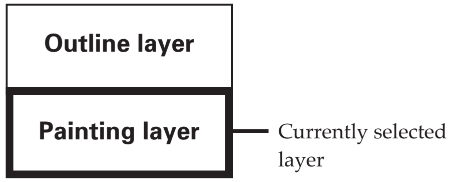


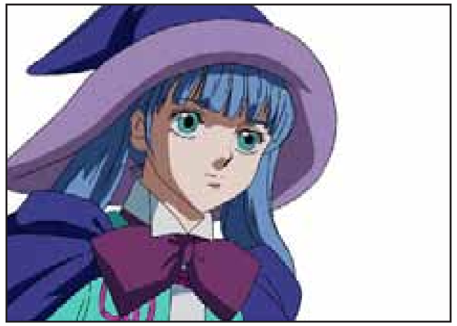
[Painting Plane] + [Outline Plane] image

Reference: Selecting a copy source layer in Ver. 5

The logic for storing an image to the copy buffer when doing a copy in RETAS!PRO Ver. 5 is as follows.

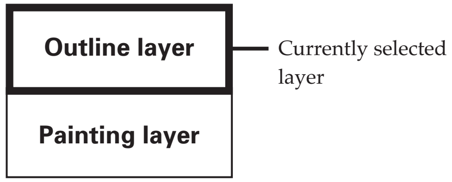
If [Painting Layer] is selected, an overlap of the [Paint Layer] and [Outline Layer] images is stored to the copy buffer.

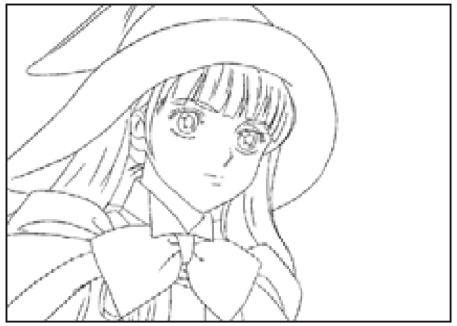

Outline layer
Painting layer
Currently selected layer



[Painting Plane] + [Outline Plane] image

If [Outline Layer] is selected, only the [Outline Layer] image is stored in the copy buffer.


Outline layer
Currently selected layer
Painting layer



[Outline Plane] image

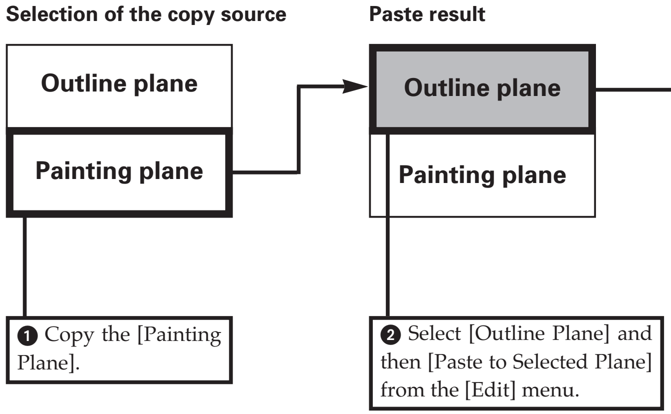
Tips

To do a copy similar to that in Ver. 5 with RETAS!PRO HD, you need to select both the [Painting Plane] and [Outline Plane].

Pasting to a specified layer

The procedure for copying to a layer and plane with different attributes using [Paste to Selected Plane] is as follows.

[Paste to Selected Plane] example


Selection of the copy source
Paste result
Outline plane
Painting plane
Outline plane
Painting plane

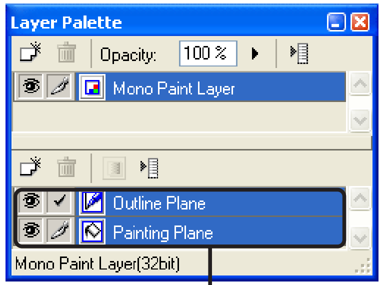
❸ The [Painting Plane] image is integrated to the [Outline Plane] then pasted.

❶ Copy the [Painting Plane].

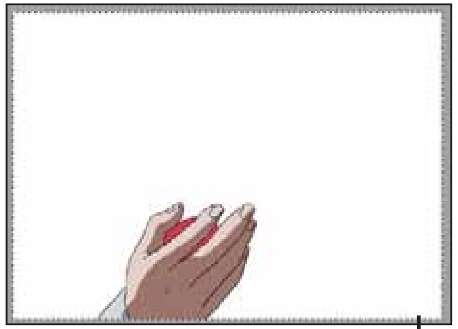
❷ Select [Outline Plane] and then [Paste to Selected Plane] from the [Edit] menu.

1. Open the copy source layer.

Select the plane that contains the image you want to copy from the [Layer Palette]. Select the whole [Cel] window and copy.


Layer Palette
Opacity:
100 %
Mono Paint Layer
Outline Plane
Painting Plane
Mono Paint Layer(32bit)

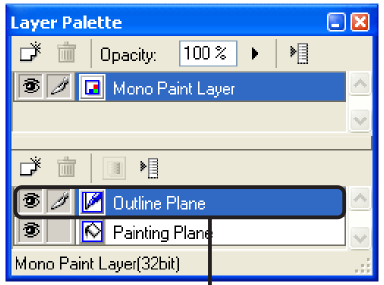
❶ In this example both [Outline Plane] and [Painting Plane] are selected as the entire image is to be copied.



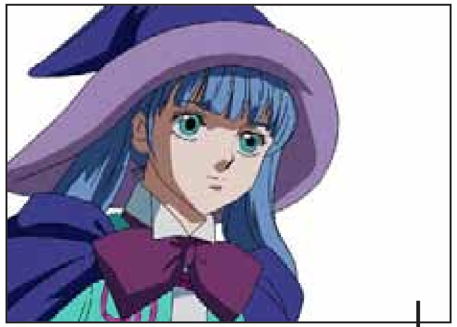
❷ Select the entire image.

2. Select the paste destination plane.

Select the plane to which you want to paste the image from the [Layer Palette].


Layer Palette
Opacity:
100 %
Mono Paint Layer
Outline Plane
Painting Plane
Mono Paint Layer(32bit)

❶ Select the [Outline Plane] of the paste destination image.



❷ Open the paste destination image.

3. Select [Paste to Selected Plane].

Select [Paste to Selected Plane] from the [Edit] menu.

4. Completion

The image is pasted to the selected plane.

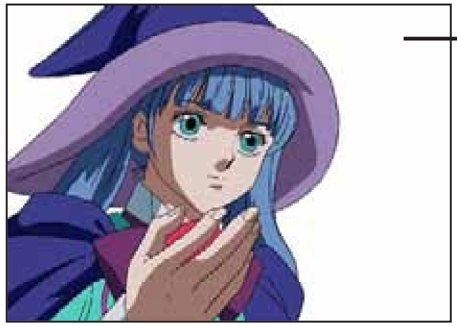


Image after paste

Images are in floating state immediately after paste. To confirm the paste, select [Deselect] from the [Edit] menu.

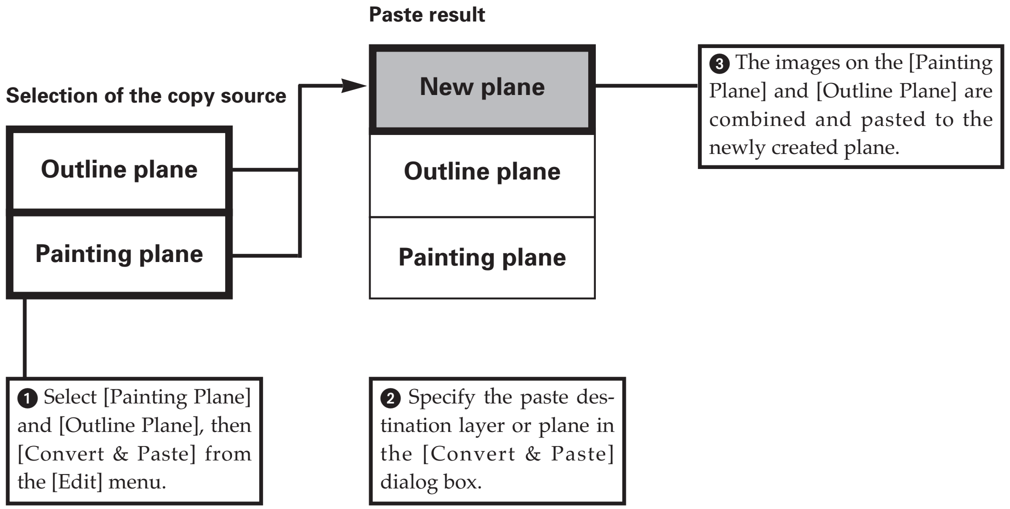
Tips

Dragging on the [Cel] window immediately after paste (when the image is in floating state) moves the image position.

Pasting to a new layer

The procedure for pasting to a newly created layer and plane using [Convert & Paste] is as follows.

[Convert & Paste] example


Paste result
Selection of the copy source
Outline plane
Painting plane
New plane
Outline plane
Painting plane

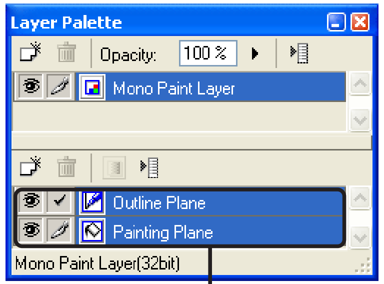
❶ Select [Painting Plane] and [Outline Plane], then [Convert & Paste] from the [Edit] menu.

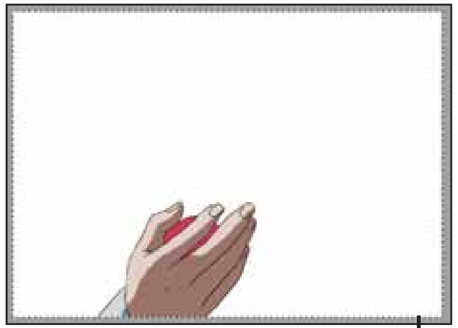
❷ Specify the paste destination layer or plane in the [Convert & Paste] dialog box.

❸ The images on the [Painting Plane] and [Outline Plane] are combined and pasted to the newly created plane.

1. Open the copy source layer.

Select the plane that contains the image you want to copy from the [Layer Palette]. Select the whole [Cel] window and copy.


Layer Palette
Opacity: 100 %
Mono Paint Layer
Outline Plane
Painting Plane
Mono Paint Layer(32bit)

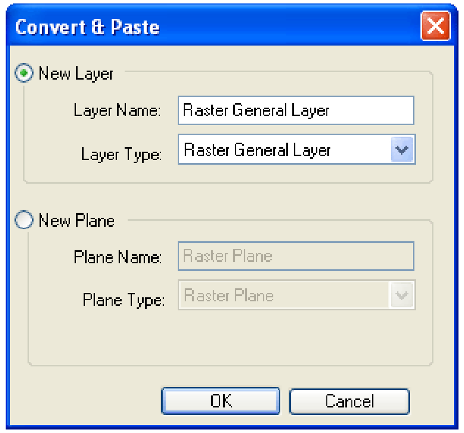


❶ In this example both [Outline Plane] and [Painting Plane] are selected as the entire image is to be copied.

❷ Select the entire image.

2. Select [Convert & Paste].

Select [Convert & Paste] from the [Edit] menu. The [Convert & Paste] dialog box appears. You can select the destination for the conversion (layer or plane) by selecting the corresponding radio button.


Convert & Paste

● New Layer

Layer Name: Raster General Layer

Layer Type: Raster General Layer

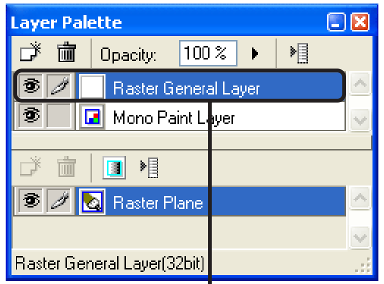
○ New Plane

Plane Name: Raster Plane

Plane Type: Raster Plane

3. Completion

A new plane is created and the image pasted there.


Layer Palette
Opacity: 100 %
Raster General Layer
Mono Paint Layer
Raster Plane
Raster General Layer(32bit)

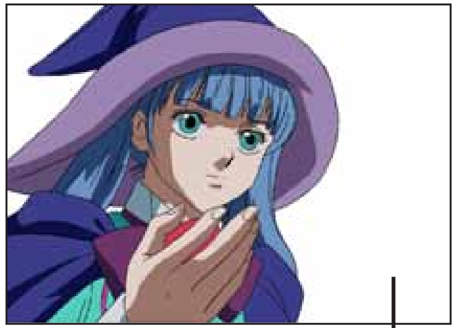


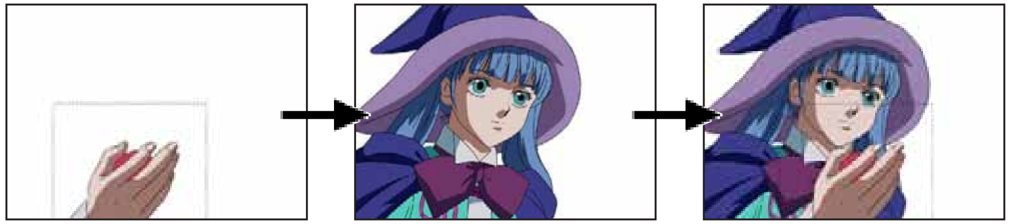
Image after paste

Newly created layer.

Images are in floating state immediately after paste. To confirm the paste, select [Deselect] from the [Edit] menu.

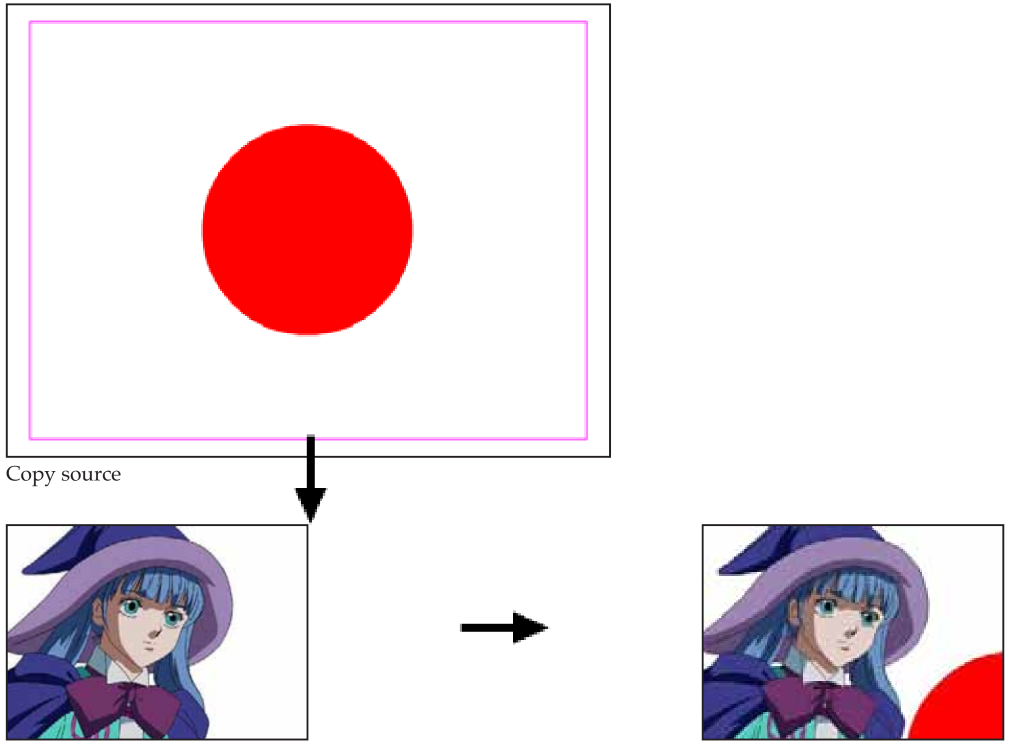
Position of a pasted image

In paste, the coordinates in the copy source are kept.



Copy source Paste destination Paste result

The coordinates are kept even when the copy source coordinates are larger than those of the paste destination.



Copy source

Paste destination

Paste result

RETAS!PRO

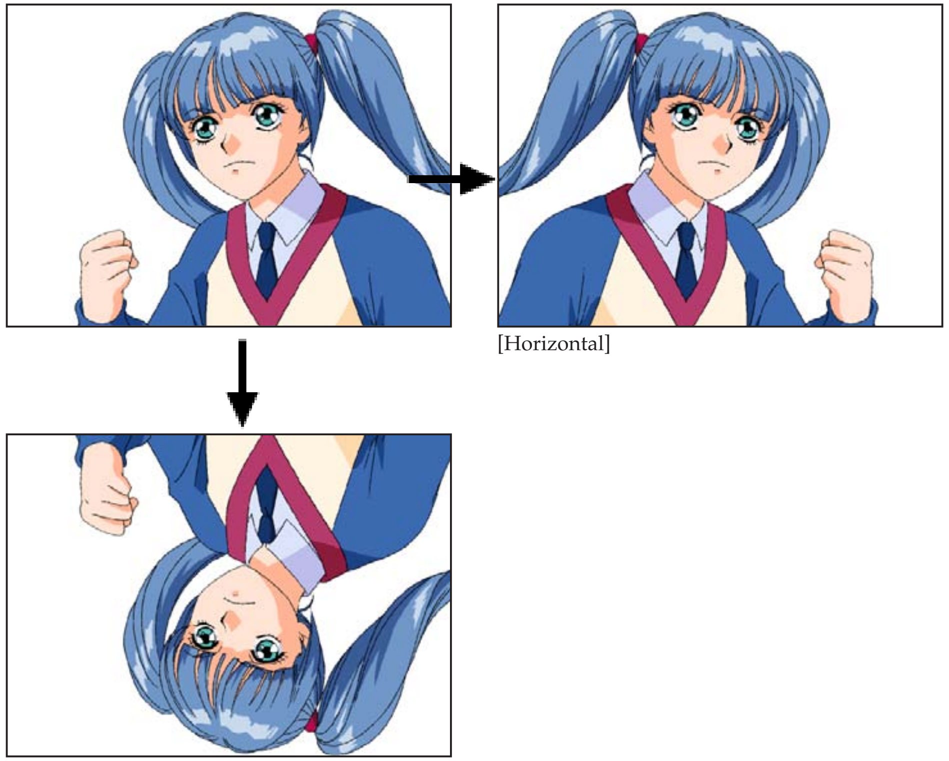
Chapter 11

Editing Images

Transforming an image entirely

Mirror **[Cel] → [Mirror] → [Horizontal]/[Vertical]**

Inverts an image in the horizontal or vertical direction.



[Horizontal]

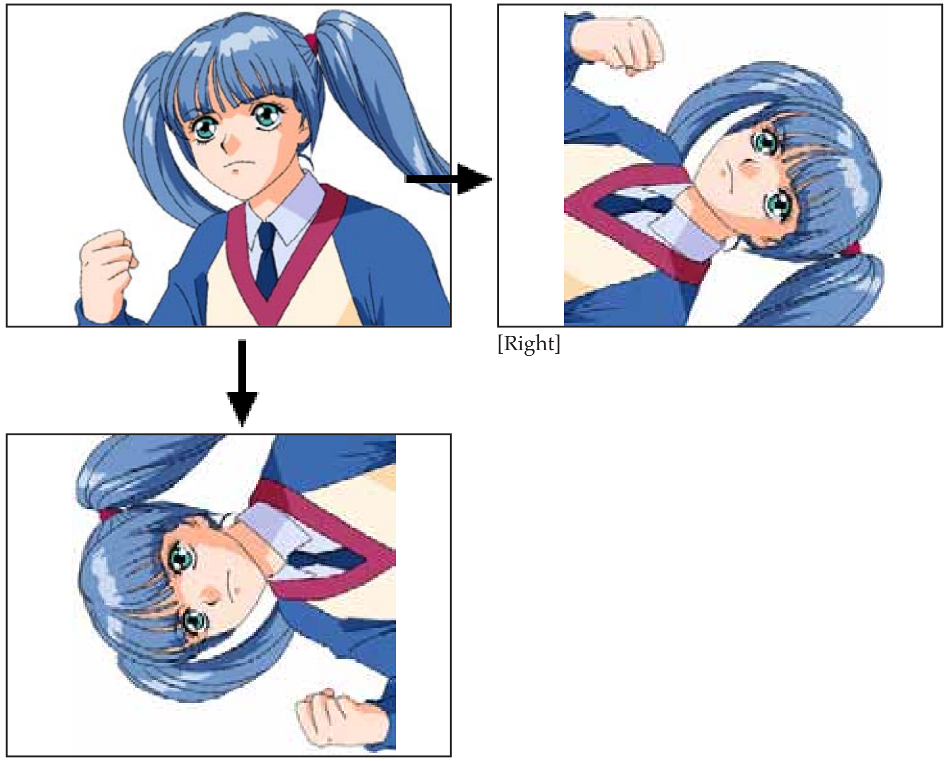
[Vertical]

Tips

Transform commands under the [Cel] menu or the [Edit] menu not only modifies the way an image is shown on the screen but the actual data as well. Be careful not to confuse with the reverse or rotate commands under the [View] menu or in the [Tool Bar].

Rotate **[Cel] → [Rotate] → [Left]/[Right]**

Rotates the image in 90 degrees.

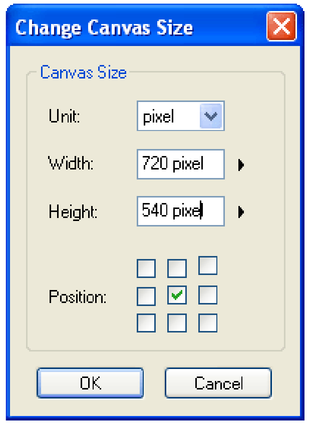


[Right]

[Left]

Changing the canvas size

Select [Canvas Size...] from the [Cel] menu. The [Change Canvas Size] dialog box that allows you to change the canvas size appears.



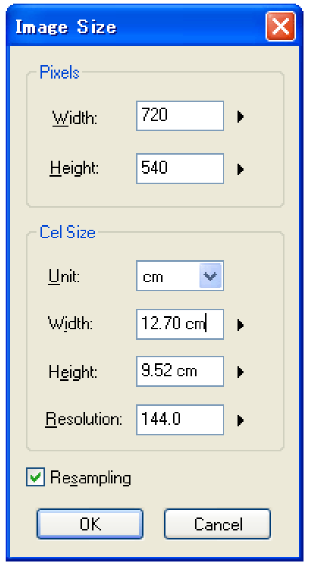
Unit: pixel
Width: 720 pixel
Height: 540 pixel

[Canvas Size]

- **[Unit]**
  Allows you to specify the unit for the canvas size.
- **[Width]**
  Allows you to specify the width of the image.
- **[Height]**
  Allows you to specify the height of the image.
- **[Position]**
  Allows you to specify the position of the original image with respect to the new image.

Changing the image size

Select [Image Size...] from the [Cel] menu. The [Image Size] dialog box that allows you to change the resolution of the image appears.



Width: 720
Height: 540
Unit: cm
Width: 12.70 cm
Height: 9.52 cm
Resolution: 144.0
☑ Resampling

[Pixels]

- **[Width]**
  Allows you to change the width of the image in pixels.
- **[Height]**
  Allows you to change the height of the image in pixels.

[Cel Size]

- **[Unit]**
  Allows you to select a [Unit] from cm, mm, and inch.
- **[Width]**
  Allows you to change the width of the image.
- **[Height]**
  Allows you to change the height of the image.
- **[Resolution]**
  Allows you to select an image size.

- **[Resampling]**
  If deselected, allows you to change the image size without changing the number of pixels.

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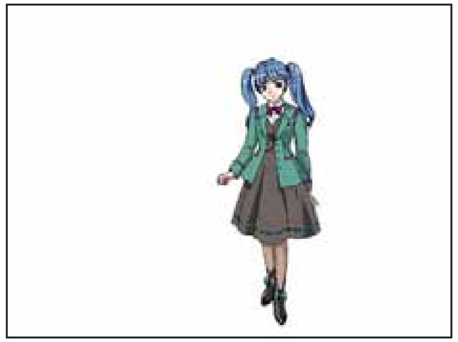
Copying a selection

The procedure for copying a selection which is convenient when you need multiple copies of the same image is as described below.



Original image

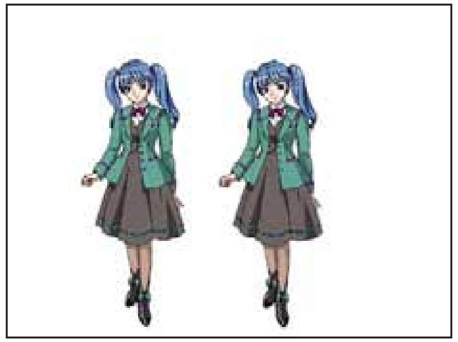
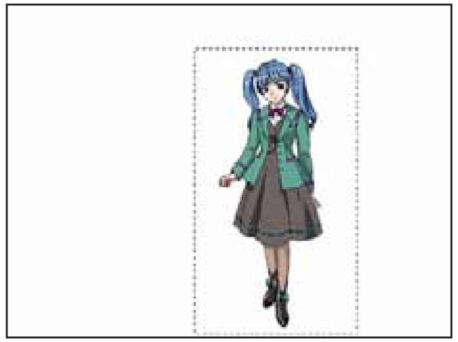


Image with a pasted and displaced copy.

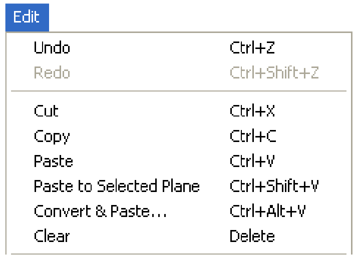
1. Make a selection.

Select the image you want to copy or move using the [Selection] tool.



2. Select the command.

Select [Cut] or [Copy] from the [Edit] menu then select [Paste] from the [Edit] menu for the paste destination layer to paste the copy of the image.

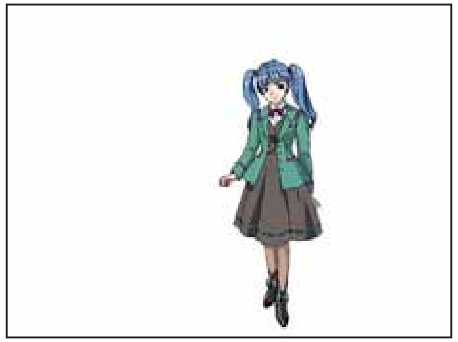

Edit
Undo Ctrl+Z
Redo Ctrl+Shift+Z
Cut Ctrl+X
Copy Ctrl+C
Paste Ctrl+V
Paste to Selected Plane Ctrl+Shift+V
Convert & Paste... Ctrl+Alt+V
Clear Delete

Tips

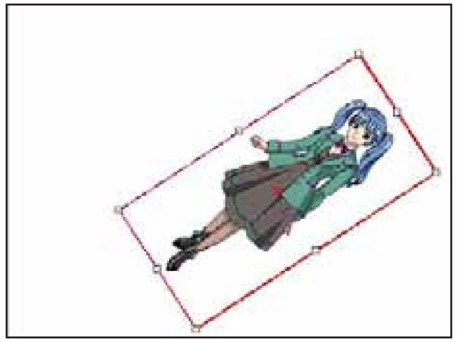
The copy of an image is pasted to the same coordinates as the original image. To change the position of the image, drag with the [Move] tool.

Transforming a selection

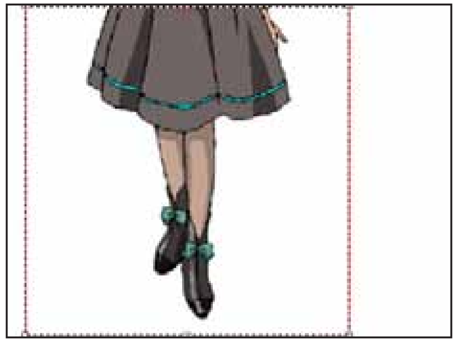
To edit an image partially, make a selection then select [Transform] from the [Edit] menu and execute one of the commands as indicated in the procedure below. Note that these transformations are different from those using the tool bar or the [View] menu in the sense that they not only change the way an image is shown on the screen but the image data as well.



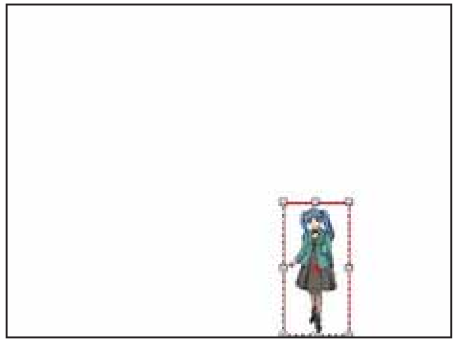
Original image



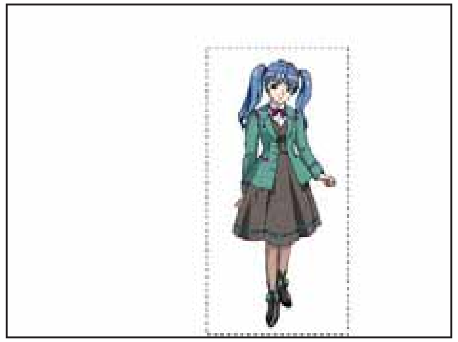
[Rotate]



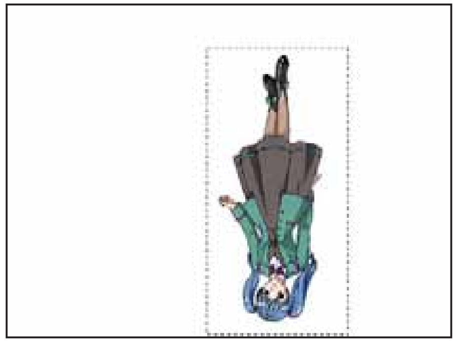
[Zoom In]



[Zoom Out]



[Flip Horizontal]



[Flip Vertical]

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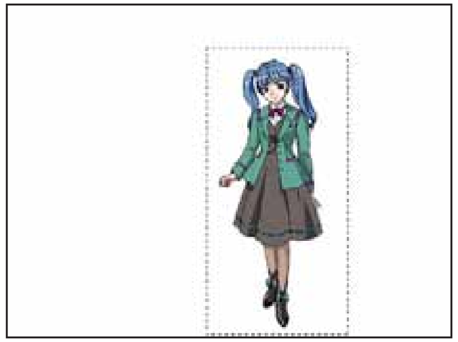
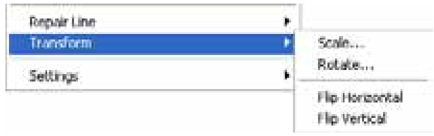
1. Make a selection.

Specify the area of the image you want to edit using the [Selection] tool.



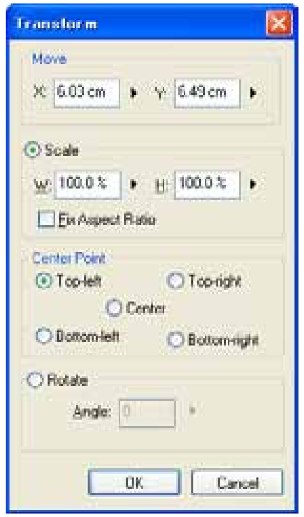
2. Select the command.

Select [Transform] from the [Edit] menu then the command you want to execute. If you select [Scale...] or [Rotate...], a [Transform] dialog box appears. (if you select [Flip Horizontal] or [Flip Vertical], the command is executed)



3a. Transform by configuring the Transform dialog box settings.

Configure the detailed settings. You can configure while confirming the result in the [Cel] window which acts as a preview.

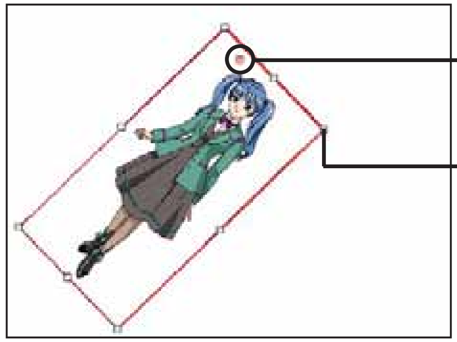


Move
X: 6.03 cm Y: 6.49 cm
● Scale
W: 100.0 % H: 100.0 %
☐ Fix Aspect Ratio
Center Point
● Top-left ○ Top-right
○ Center
○ Bottom-left ○ Bottom-right
○ Rotate
Angle: 0 °

- **[Move]**
  Allows you to specify the horizontal position (X) and the vertical position (Y) for the move.
- **[Scale]**
  Allows you to specify the scale as a relation between [W] (width) and [H] (height) in %.
- **[Fix Aspect Ratio]**
  Selecting this check box allows you to resize by keeping the aspect ratio constant.
- **[Center Point]**
  Allows you to select the position of the center point for the transformation from among [Top-left], [Top-right], [Center], [Bottom-left], and [Bottom-right].
- **[Rotate]**
  Allows you to change the rotation angle.

3b. Transform by dragging.

Drag the red frame directly to scale and/or rotate the selection.

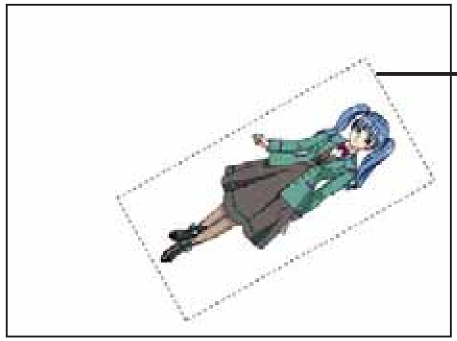


Drag the [Center Point] to move the center of rotation.

Drag the handle with the [Shift] key held down to scale with constant aspect ratio.

4. Confirm the transformation.

After changing, click [OK] to confirm the edited content.

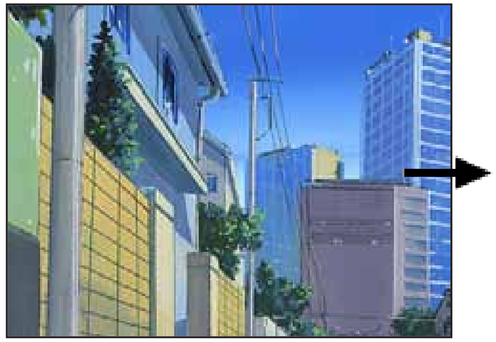


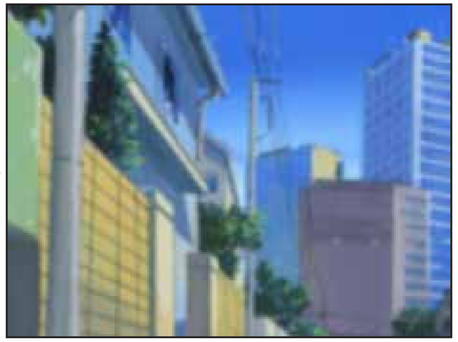
Press [Ctrl/Cmd] + [D] (or by selecting [Selection] → [Deselect]) to deselect the selection that remains active.

Filter

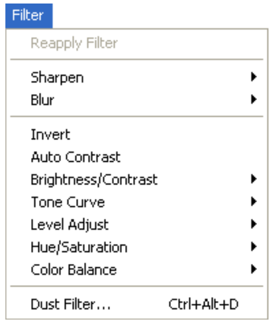
What is a filter?

[Filter] is a function for applying various types of compensations and/or effects to an image.


Original image


Example: Gaussian blur

Applying a filter


Filter
Reapply Filter
Sharpen
Blur
Invert
Auto Contrast
Brightness/Contrast
Tone Curve
Level Adjust
Hue/Saturation
Color Balance
Dust Filter... Ctrl+Alt+D
Example from PaintMan HD

1. Select an area.

Specify the area to which you want to add a filtering effect using the [Selection] tool. If no selection is made, the whole active plane is assumed as the filtering target.

2. Select the menu.

Select the command you want to execute from the [Filter] menu. [Sharpen (Heavy)], [Sharpen (Light)], [Blur (Heavy)], [Blur (Light)], [Invert], and [Auto Contrast] are filter commands that are executed immediately when selected.

3. Configure the detailed settings.

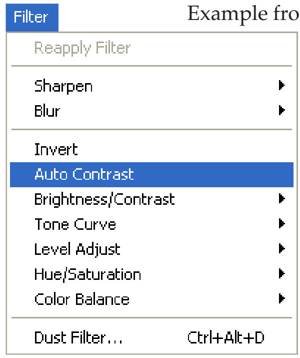
[Brightness/Contrast], [Tone Curve], [Level Adjust], [Hue/Saturation], [Color Balance], [Unsharp Mask], and [Gaussian Blur] are filter commands that need further settings. Select [Settings...] to open the settings dialog box. Adjust the parameters while confirming the result in the [Preview].

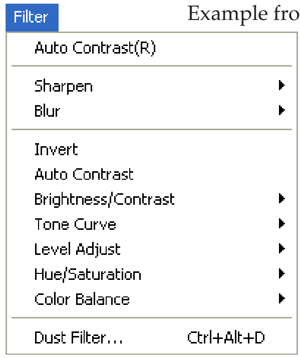
4. Execute.

Select [Apply] under each of the commands of the [Filter] menu, or click the [Apply] button on the settings dialog box to execute the filtering.

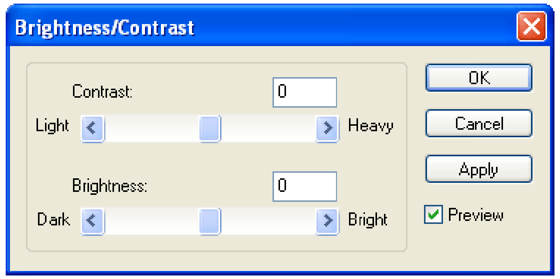
Re-applying a filter

When a command under the [Filter] menu is executed, that command is copied to the first row under the [Filter] menu.


Filter
Reapply Filter
Sharpen
Blur
Invert
Auto Contrast
Brightness/Contrast
Tone Curve
Level Adjust
Hue/Saturation
Color Balance
Dust Filter... Ctrl+Alt+D
Example from PaintMan HD


Filter
Auto Contrast(R)
Sharpen
Blur
Invert
Auto Contrast
Brightness/Contrast
Tone Curve
Level Adjust
Hue/Saturation
Color Balance
Dust Filter... Ctrl+Alt+D
Example from PaintMan HD

Settings dialog box: Common items


Brightness/Contrast

Contrast: 0

Brightness: 0

☑ Preview

Light
Heavy
Dark
Bright
OK
Cancel
Apply

- **[OK] button**
  Saves the current settings and closes the dialog box. The image remains unchanged.
- **[Cancel] button**
  Cancels the current settings and closes the dialog box. The image remains unchanged.
- **[Apply] button**
  The image changes as settings are applied each time the button is clicked.
- **[Preview]**
  Selecting the check box allows you to make fine adjustments while confirming the preliminary result of the execution in the [Cel] window.

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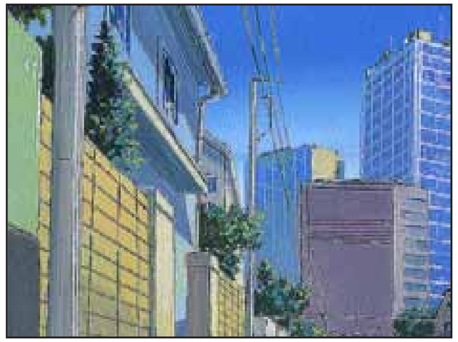
Sharpen (Heavy)

[Filter] → [Sharpen] → [Sharpen (Heavy)]

Sharpens a blurry image.

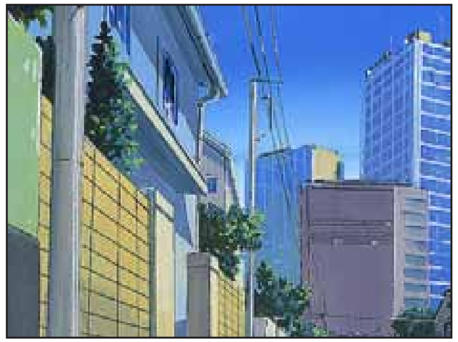


Sharpen (Heavy)

Sharpen (Light)

[Filter] → [Sharpen] → [Sharpen (Light)]

Sharpens slightly a blurry image.

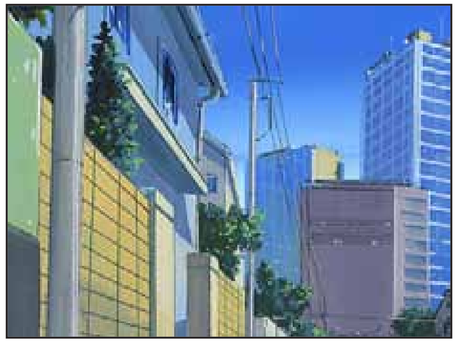


Sharpen (Light)

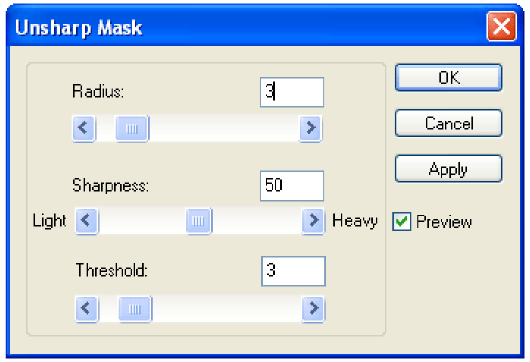
Unsharp Mask

[Filter] → [Sharpen] → [Unsharp Mask...]

Controls the [Sharpen] effect using 3 parameters.



Unsharp mask (10,50,12)



Radius: 3

Sharpness: 50

Threshold: 3

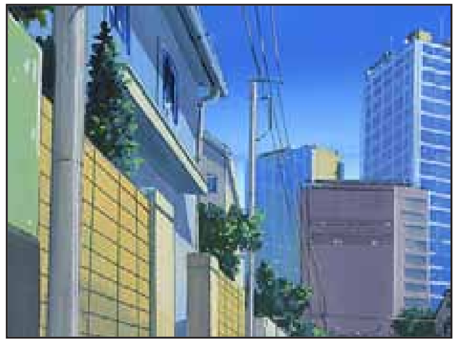
☑ Preview

- **[Radius]**
  Allows you to specify the size of the area you want the effect to be applied.
- **[Sharpness]**
  Allows you to select the intensity of the effect.
- **[Threshold]**
  Allows you to select the minimum difference in contrast to apply the effect.

Blur (Heavy)

[Filter] → [Blur] → [Blur (Heavy)]

Smoothes edges, very bright areas, or rough strokes in an image by averaging.

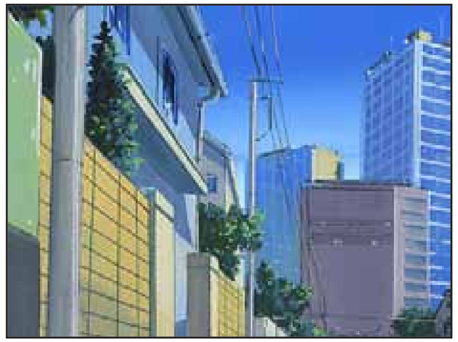


Blur (Heavy)

Blur (Light)

[Filter] → [Blur] → [Blur (Light)]

Smoothes slightly edges, very bright areas, or rough strokes in an image by averaging.

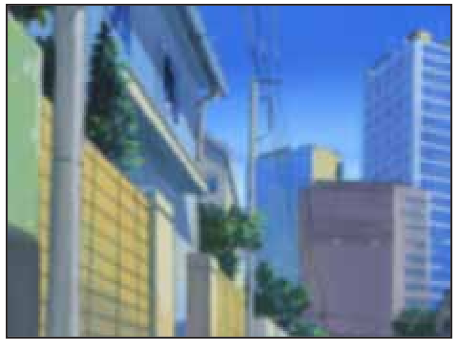


Blur (Light)

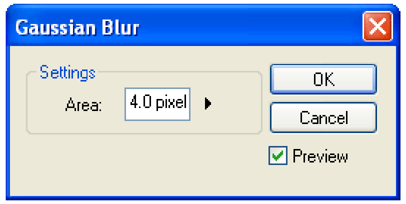
Gaussian blur

[Filter] → [Blur] → [Gaussian Blur...]

Applies a smooth blurring of an arbitrary intensity that follows the Gaussian distribution.



Gaussian blur



Gaussian Blur

Settings

Area: 4.0 pixel

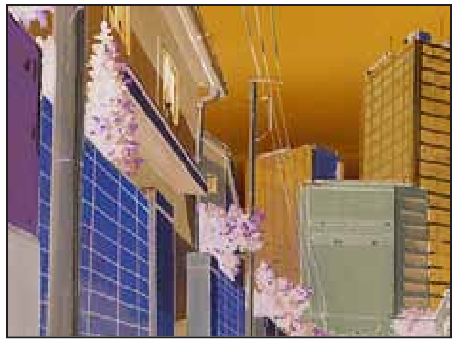
Tips

Pinpoint blurring is also possible using the Blur tool.

Invert

[Filter] → [Invert]

Inverts the tones in an image.

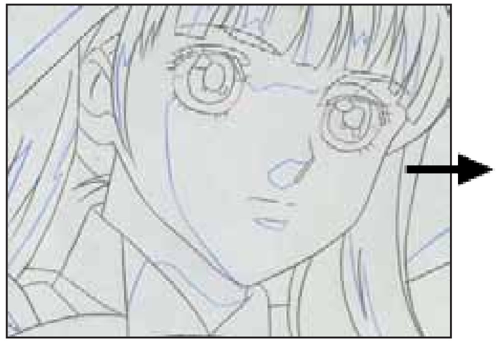


Invert

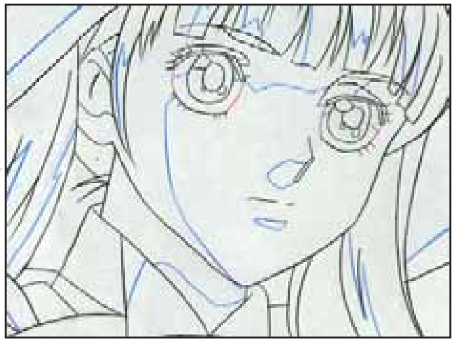
Auto Contrast

[Filter] → [Auto Contrast]

Adjusts the image contrast automatically and makes the image clearer.



Key



After [Auto Contrast]

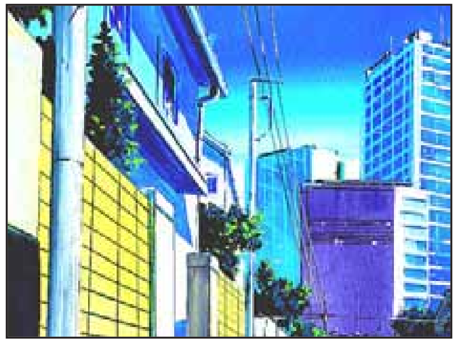
Tips

With TraceMan HD, applying [Auto Contrast] before trace improves the trace results. That is, if the contrast in the image is poor, the trace function may not distinguish the lines from the paper properly.

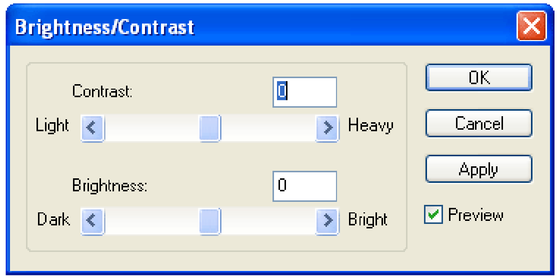
Brightness/Contrast

[Filter] → [Brightness/Contrast] → [Apply]/[Settings...]

Adjusts the brightness and contrast in an image.



Brightness / Contrast



Brightness/Contrast

Contrast: 0

Brightness: 0

☑ Preview

- **[Contrast]**
  Allows you to adjust the contrast in an image. The smaller the value, the lower the contrast; and the higher the value, the higher the contrast.
- **[Brightness]**
  Allows you to adjust the brightness/darkness in an image. The smaller the value, the darker the image; and the higher the value, the brighter the image.

Tips

Creating an [Adjustment Layer] for [Brightness/Contrast] adjustment allows you to try the adjustment as many times as needed because you can make adjustments without changing the original image.

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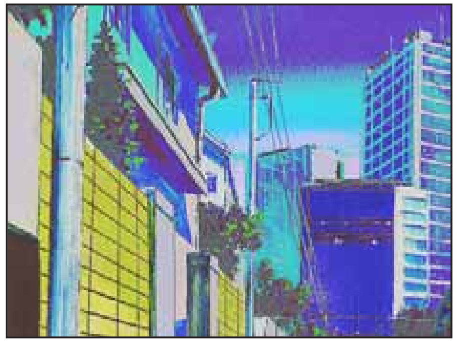
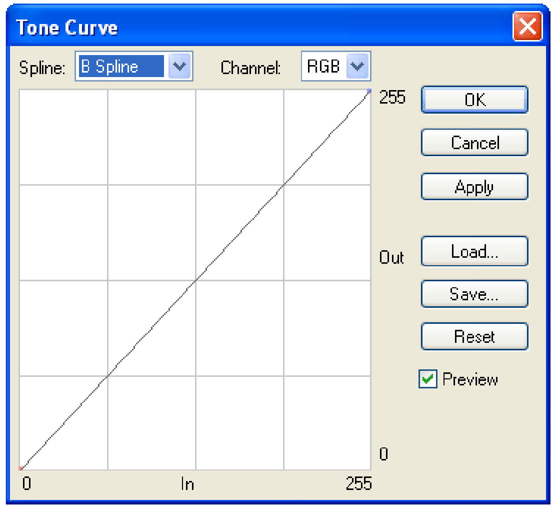
Tone curve

[Filter] → [Tone Curve] → [Apply]/[Settings...]

Allows you to change the tones in an image by manipulating the tone curve through click and drag. In the [Tone Curve], the horizontal axis is the original pixel brightness (input level) and the vertical axis, the brightness after change (output level).



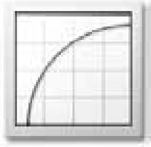
Tone curve



Spline: B Spline

Channel: RGB

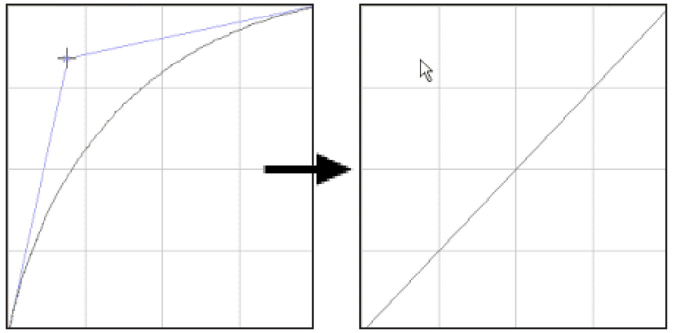
- **[Spline]**
  Allows you to select the type of curve from [B Spline] and [Bezier Curve]. (In [Bezier Curve], the number of points you can create for controlling the tones is maximum 2)
- **[Channel]**
  Allows you to select the target color plane from [RGB], [Red Only], [Blue Only], and [Green Only].
- **[Load...]**
  Loads a saved **[Tone Curve Settings File] (extension: tc2)**.
- **[Save...]**
  Saves the current [Tone Curve] settings as a **[Tone Curve Settings File] (extension: tc2)**.
- **[Reset]**
  Resets the [Tone Curve] to the default values.



[Tone Curve Settings File]

Clicking within the graph adds a control point you can drag for adjusting the tone curve.
Shifting up the curve makes the image brighter than the original image while shifting down makes the image darker than the original image.

To remove a control point, drag it outside the graph.



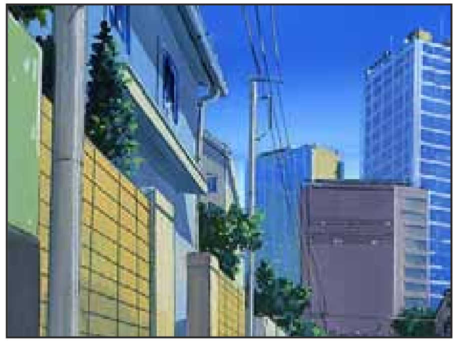
Tips

Creating an [Adjustment Layer] for [Tone Curve] adjustment allows you to try the adjustment as many times as needed because you can make adjustments without changing the original image.

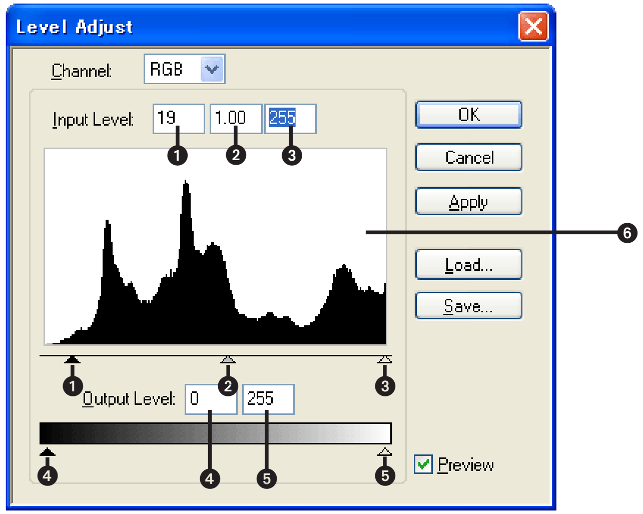
Level adjust

[Filter] → [Level Adjust] → [Apply]/[Settings...]

Allows you to adjust the tones in an image using a histogram (brightness distribution) and/or numeric entry while confirming the changes in the image in the [Preview]. Moving the triangular indicator to the right makes the image darker while moving the indicator to the left makes the image brighter.



Level adjust


Level Adjust

Channel: RGB

Input Level: 19 1.00 255

Output Level: 0 255

☑ Preview

- **[Channel]**
  Allows you to select the color to adjust from [RGB], [R], [G], and [B].

❶ **Shadow [Input Level]**
Adjusts the darkest point input level.

❷ **Gamma [Input Level]**
Adjusts the intermediate point input level.

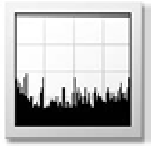
❸ **Highlight [Input Level]**
Adjusts the brightest point input level.

❹ **Shadow [Output Level]**
Adjusts the darkest point output level.

❺ **Highlight [Output Level]**
Adjusts the brightest point output level.

❻ **Histogram**
Is a bar graph representing the distribution map from the darkest point (left side) to the brightest point (right side).

- **[Load...]**
  Loads a saved **[Level Adjust Settings File] (extension: rly)**.
- **[Save...]**
  Saves the current settings as a **[Level Adjust Settings File] (extension: rly)**.



[Level Adjust Settings File]

Tips

Creating an [Adjustment Layer] for [Level Adjust] allows you to try the adjustment as many times as needed because you can make adjustments without changing the original image.

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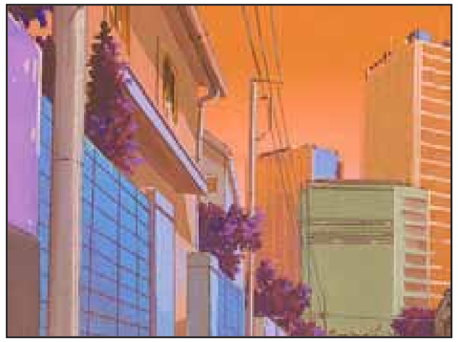
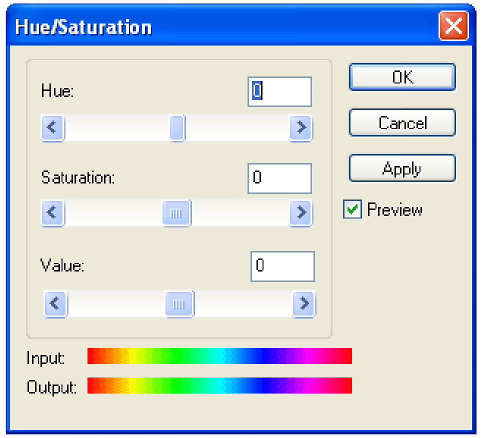
Hue/Saturation

[Filter] → [Hue/Saturation] → [Apply]/[Settings...]

Changes the color of an image by adjusting the three components of the HSV color model color, that is, hue, saturation, and value.



Hue/Saturation



Hue: 0

Saturation: 0

Value: 0

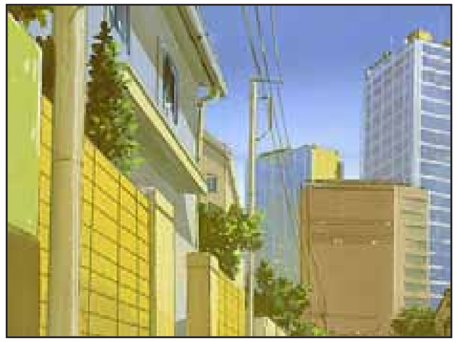
☑ Preview

- **[Hue]**
  Adjusts the specific hue of a color such as "red", "blue", etc.
- **[Saturation]**
  Adjusts the vividness of a color.
- **[Value]**
  Adjusts the brightness of a color.
- **[Input]**
  Represents the color of the image before adjustment.
- **[Output]**
  Represents the color of the image after adjustment.

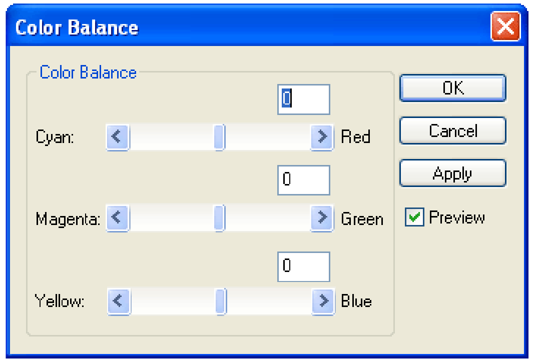
Color balance

[Filter] → [Color Balance] → [Apply]/[Settings...]

Allows you to adjust the balance between colors by manipulating the 3 sliders of complementary colors. Adjustment is also possible by entering values between -100 and +100.



Color balance



Cyan: 0 Red

Magenta: 0 Green

Yellow: 0 Blue

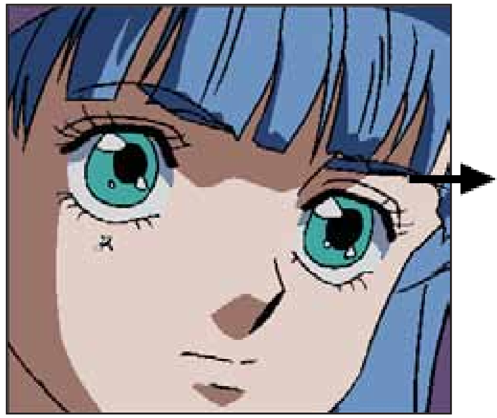
☑ Preview

Reddish image or greenish image can be adjusted by moving the slider in the opposite direction.

Effects

Airbrush tool

The thickness, transparency of the Airbrush can also be adjusted using the graphics tablet pen pressure. Enabling the [Auto Spray] allows you to increase the spray thickness according to the time applied instead of painting over by moving the mouse pointer.



Original image

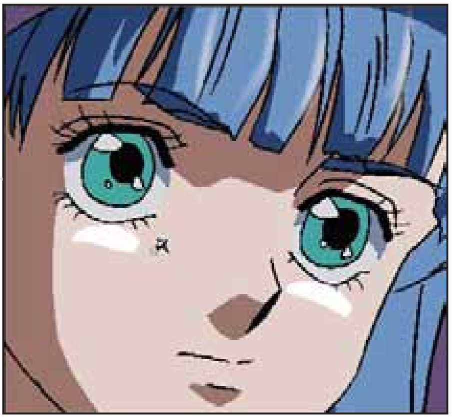
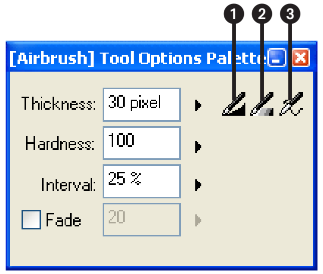


Image processed using [Airbrush] tool on the fringe and cheek

Airbrush tool options palette



Thickness: 30 pixel

Hardness: 100

Interval: 25 %

☐ Fade 20

① **[Reflect Pen Pressure on Thickness]**
Reflects the brush pressure applied to the graphics tablet when drawing on the line thickness.

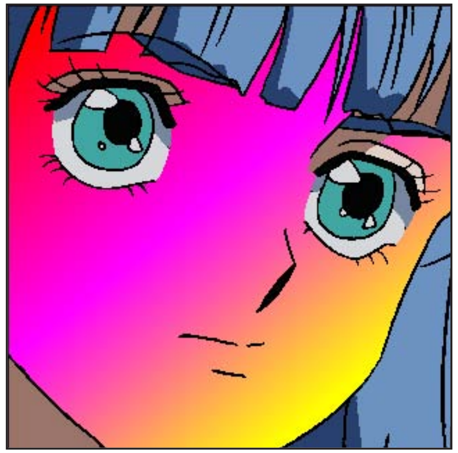
② **[Reflect Pen Pressure on Opacity]**
Reflects the brush pressure applied to the graphics tablet when drawing on the darkness of the line.

③ **[Enable Auto Spray]**
Allows you to spray continuously, without interval, until you stop dragging.

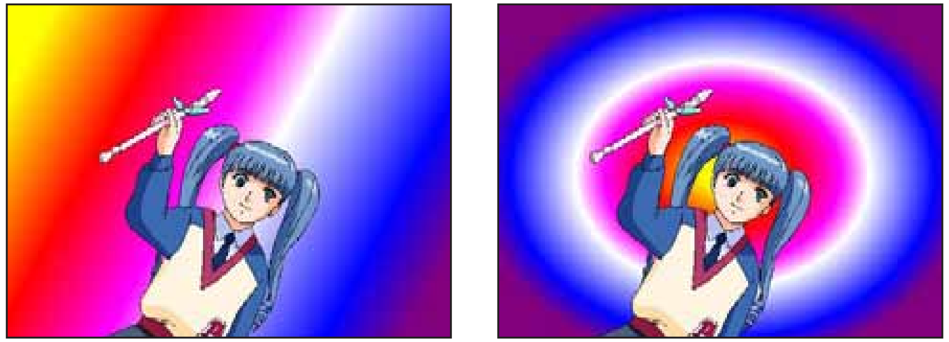
- **[Thickness]**
  Allows you to specify the line thickness.
- **[Hardness]**
  Allows you to specify the strength of the spray effect.
- **[Interval]**
  Allows you to specify the interval of time until the next spray is started.
- **[Fade]**
  Draws a line that vanishes gradually.

Gradient tool G

Gradient may include transparency as well as be of 3 or more colors. Additionally, a gradient may be linear or radial.

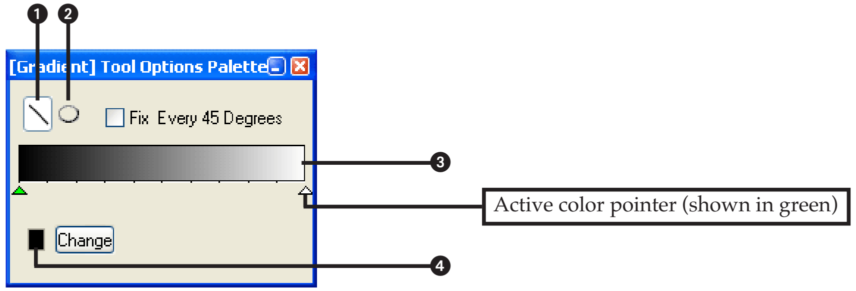


Fills the entire image with colors that changes gradually from one foreground color to another, as the mouse is dragged from a starting point to an end point.



[Linear] [Radial]

Gradient tool options palette



Active color pointer (shown in green)

❶ **[Linear] button**
Changes a color gradually from the starting point to the end point in straight lines.

❷ **[Ellipse] button**
Change a color gradually from the starting point to the end point in a circular pattern.

- **[Fix Every 45 Degrees]**
Fixes the rotation angle for a gradient to units of 45 degrees.

❸ **Gradient scale**
Allows you to select and adjust the colors you want to use in the gradient by means of a color pointer. To create a new color pointer, click the lower edge of the scale without any color pointer. In this way, you can create a gradient with multiple colors. The color pointers can be moved in the horizontal direction by dragging. To delete a color pointer, drag it vertically out of the [Gradient] tool options palette.

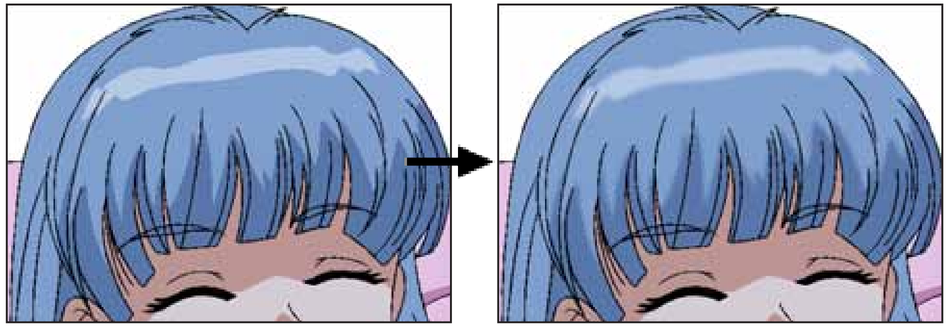
❹ **[Foreground Color] box**
Shows the color that is assigned to the active color pointer. Click [Change] at the right to reflect the foreground color in the box and make it available for use. Note that to specify a [Foreground Color], you do it on the [Tool Palette] by clicking the [Foreground Color] button there.

Tips

Normally, a gradient fills the entire screen. So basically, only one gradient is applied in one image. However, if you want to apply multiple gradients or a partial gradient, make a selection and apply the gradient there.

Airbrush Effect tool V

Adds a gradient effect as with an airbrush to an edge between colors specified by a mouse click.

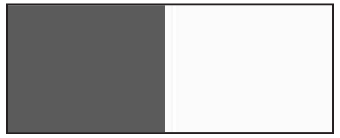


Original image

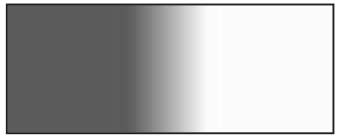
After applying the [Airbrush Effect] tool

Difference between Airbrush Effect and Blur

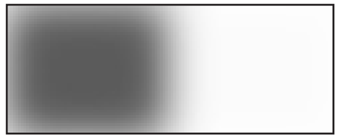
[Airbrush Effect] is a function that identifies automatically the edges between the specified colors and applies the gradient to that edge.



Original edge



[Airbrush Effect]

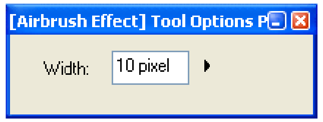


Ordinary blurring

The Airbrush Effect is limited to the edge area. The same effect cannot be achieved with ordinary blurring as it does not identify the border between colors.

Airbrush Effect tool options palette

Specifies the width for the gradient effect to be applied to the edge between colors.

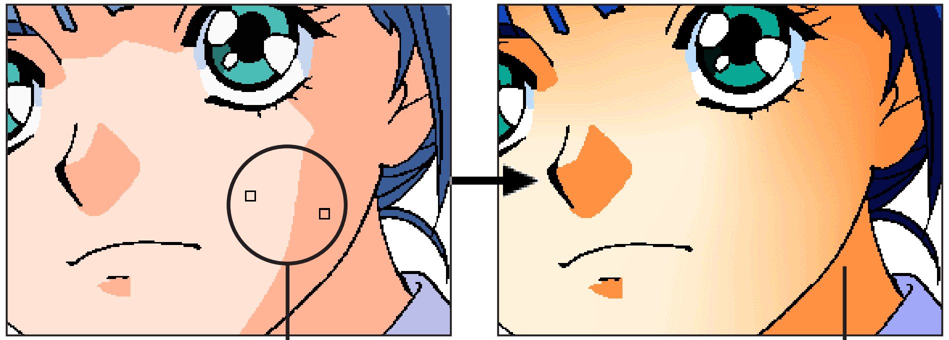


[Airbrush Effect] Tool Options P

Width: 10 pixel

[Airbrush Effect] can be applied from the tool palette, the menu, and the batch processing. All three methods reference the width settings in this [Tool Options Palette].

Applying an Airbrush Effect



❶ Click on the edge between colors where you want to apply the airbrush. A mark appears in the place.

❷ Press [Enter/Return]. [Airbrush Effect] is applied to the selected edge.

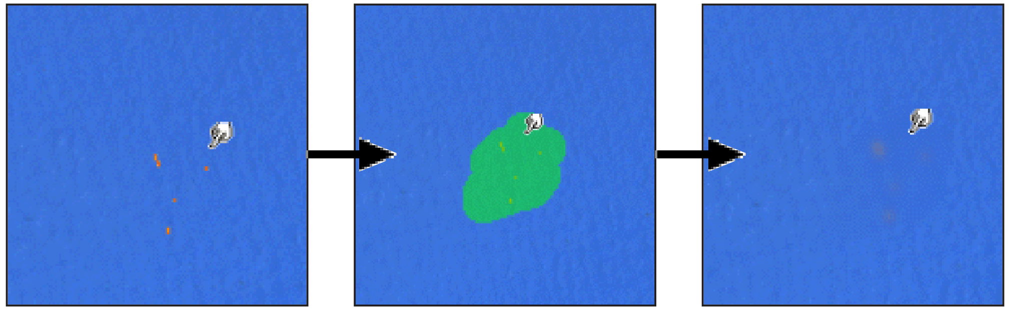
Tips

[Airbrush Effect] and [Change Line Color] can be applied even without a selection.
When there is no selection, the effect is applied to the entire image of the selected plane.

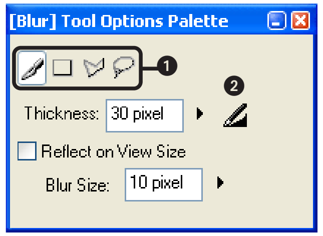
Retouch

Blur tool N

Smoothes a specified portion of an image by blurring. This is useful for correcting scratches in the BG, for example.



Blur tool options palette



Thickness: 30 pixel

☐ Reflect on View Size

Blur Size: 10 pixel

① **Selection Option**

Allows you to select the mouse pointer shape from [Pen], [Rectangle], [Polyline], and [Lasso]. To select, click the corresponding icon.

- **[Thickness]**

  Allows you to specify the thickness of the brush-like pointer.

② **[Reflect Pen Pressure on Thickness]**

Reflects the pen pressure applied to the graphics tablet when drawing to the thickness of the selection made with [Pen].

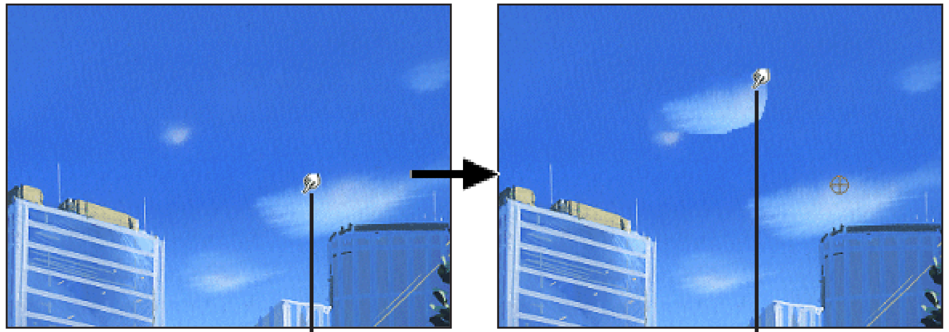
- **[Reflect on View Size]**

  Shows the view of the selection made with [Pen] in the same size as in 100% view even when the screen view is scaled.
- **[Blur Size]**

  Allows you to specify the blurring intensity.

Stamp tool N

Copies a portion of an image to another part of the image. This is useful for retouching a BG. For example, you can add as many clouds and/or trees as you like naturally.

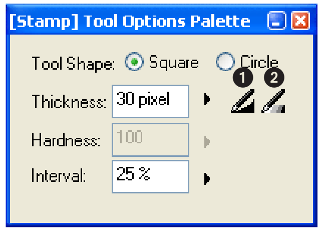


① Click the source pattern with the [Alt/Opt] key held down.

② Drag the mouse pointer towards a desired direction. The source pattern is pasted along the trajectory.

Stamp tool options palette

Specifies the shape and size of the pen for the [Stamp].



Tool Shape: ● Square ○ Circle

Thickness: 30 pixel

Hardness: 100

Interval: 25 %

① **[Reflect Pen Pressure on Thickness]**

Reflects the pen pressure applied to the graphics tablet when drawing with the pen on the line thickness.

② **[Reflect Pen Pressure on Opacity]**

Reflects the pen pressure applied to the graphics tablet when drawing with the pen on the opacity of the pasted image.

- **[Tool Shape]**

  Allows you to select either of the shapes for the pen for applying the stamp tool.
- **[Thickness]**

  Allows you to specify the thickness of the brush-like pointer.
- **[Hardness]**

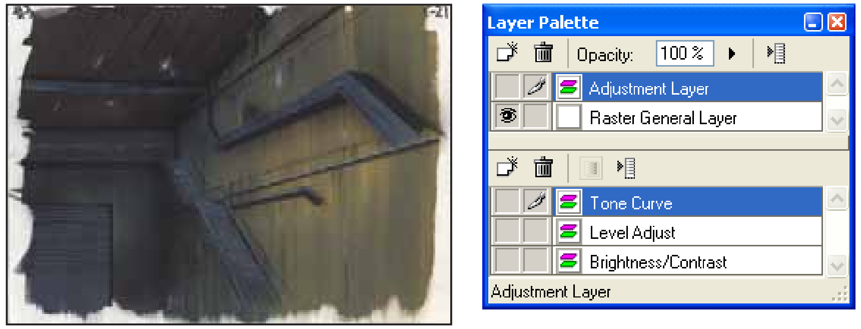
  This option is available when the tool shape is Circle. Specifying a small value makes the borders look blurry.
- **[Interval]**

  Allows you to specify the distance between the pasted patterns. The higher the value the longer the dis-

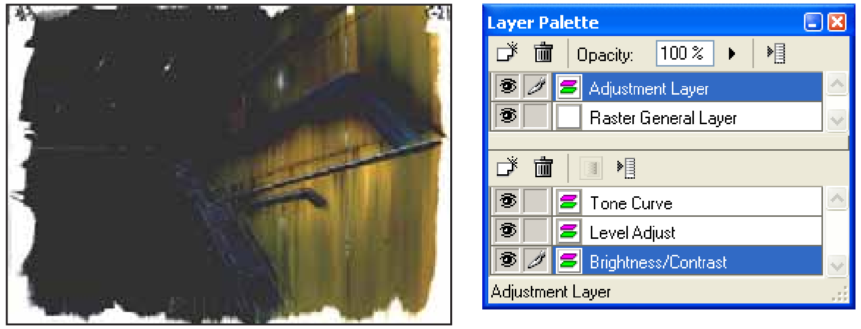
Adjustment layer

What is an adjustment layer?

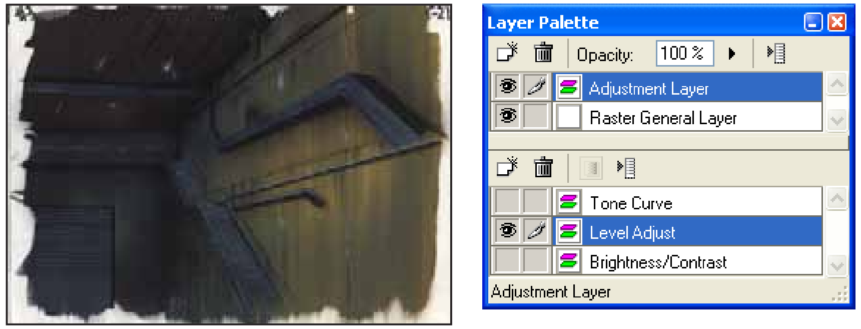
This is a layer that results from the layerization of a tone adjustment on an image. With this layer, you can retain the tone adjustments you did without changing the original image. That is, you can further change the settings as well as return to the original image.


Layer Palette
Opacity: 100 %
Adjustment Layer
Raster General Layer
Tone Curve
Level Adjust
Brightness/Contrast
Adjustment Layer

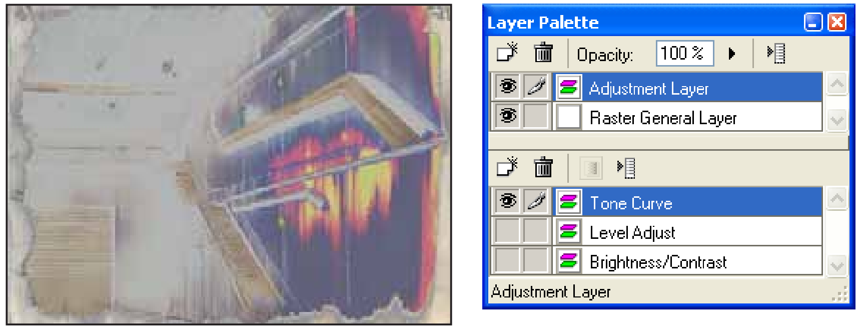
[Adjustment layer]: OFF


Layer Palette
Opacity: 100 %
Adjustment Layer
Raster General Layer
Tone Curve
Level Adjust
Brightness/Contrast
Adjustment Layer

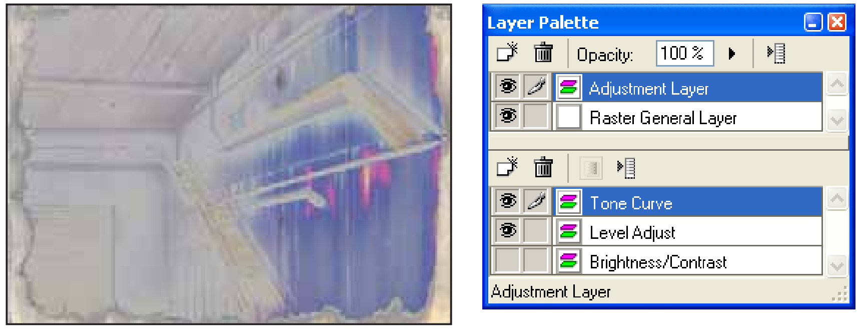
[Adjustment layer]: ON (Brightness/Contrast)


Layer Palette
Opacity: 100 %
Adjustment Layer
Raster General Layer
Tone Curve
Level Adjust
Brightness/Contrast
Adjustment Layer

[Adjustment layer]: ON (Level Adjust)


Layer Palette
Opacity: 100 %
Adjustment Layer
Raster General Layer
Tone Curve
Level Adjust
Brightness/Contrast
Adjustment Layer

[Adjustment layer]: ON (Tone Curve)


Layer Palette
Opacity: 100 %
Adjustment Layer
Raster General Layer
Tone Curve
Level Adjust
Brightness/Contrast
Adjustment Layer

[Adjustment layer]: ON (Tone Curve + Level Adjust)

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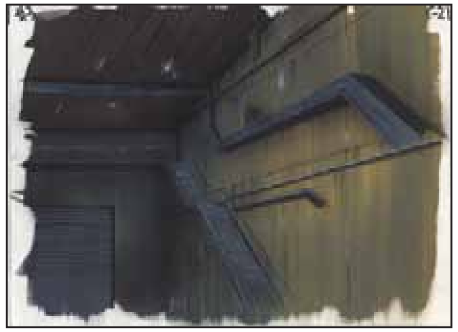
Creating an adjustment layer

The procedure for creating or adding a new layer is as follows.

1. Open the image.

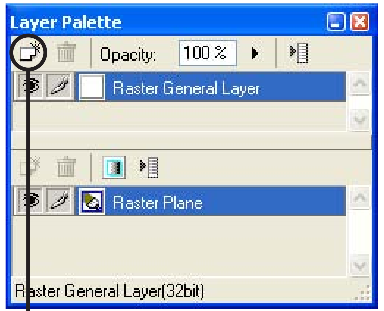
Open the image on which you want to do tone adjustment.



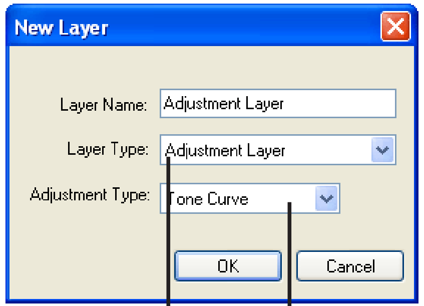
BG image before tone adjustment

2. Configure the [New Layer] dialog box settings.

Select [Layer] → [New] from the [Cel] menu. The [New Layer] dialog box appears. In the [New Layer] dialog box, select [Adjustment Layer] for [Layer Type] and the [Adjustment Type].


Layer Palette
Opacity: 100 %
Raster General Layer
Raster Plane
Raster General Layer(32bit)

The [New Layer] dialog box can also be opened by clicking the [Create New Layer] button.


New Layer
OK
Cancel

Layer Name: Adjustment Layer

Layer Type: Adjustment Layer

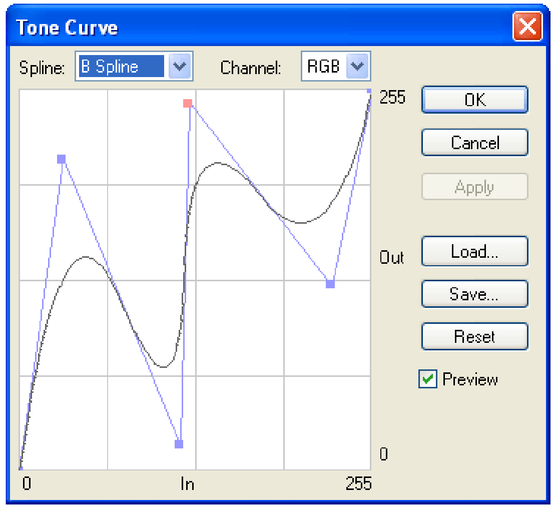
Adjustment Type: Tone Curve

Select [Adjustment Layer].

[Adjustment Type]
- [Brightness/Contrast]
- [Level Adjust]
- [Tone Curve]

3. Configure using the dialog box.

When you click [OK], a dialog box that allows you to configure the item selected in [Adjustment Type] appears.


Tone Curve
255
Out
0
0
In
255
OK
Cancel
Apply
Load...
Save...
Reset

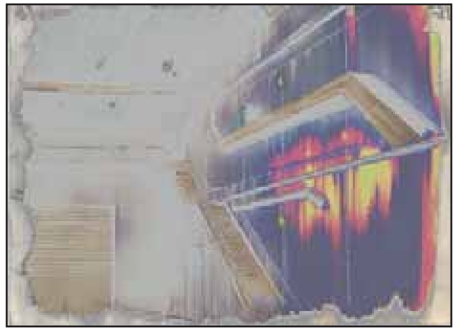
Spline: B Spline

Channel: RGB

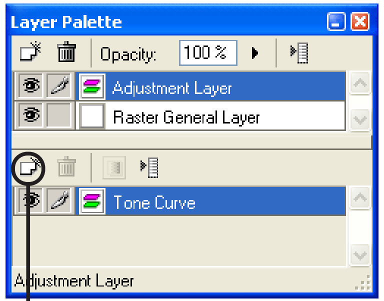
☑ Preview

4. Completion

Click [Apply] to create the [Adjustment Layer]. The layer is added to the [Layer Palette]. The item selected in [Adjustment Type] is added as plane.



BG image after tone adjustment


Layer Palette
Opacity: 100 %
Adjustment Layer
Raster General Layer
Tone Curve
Adjustment Layer

A plane can also be added from the [New Plane] dialog box opened by clicking the [Create New Plane] button.

Tips

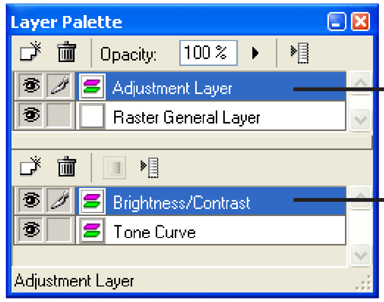
You can create multiple [Adjustment Layers] using the same procedure.

Reconfiguring the adjustment layer settings

The procedure for changing an [Adjustment Plane] settings is as follows.

1. Reconfigure the Adjustment Plane settings.

Select the [Adjustment Layer] whose settings you want to change. Then select the plane from the lower part of the [Layer Palette]. Double click the plane name field to change the settings.

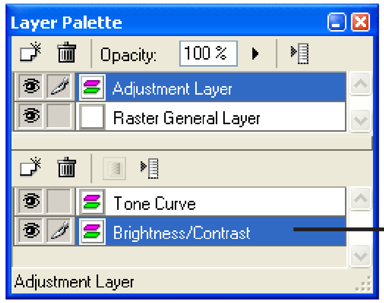

Layer Palette
Opacity:
100 %
Adjustment Layer
Raster General Layer
Brightness/Contrast
Tone Curve
Adjustment Layer

❶ Select the [Adjustment Layer] whose settings you want to change.

❷ Double click the plane name field of the [Adjustment Plane]. A dialog box that allows you to change the settings appears.

2. Change the layer/plane order.

Changing the order in which the layers and/or planes are overlapped changes the result of the effects on an image. The order can be changed between layers and between planes, but planes cannot change layers.

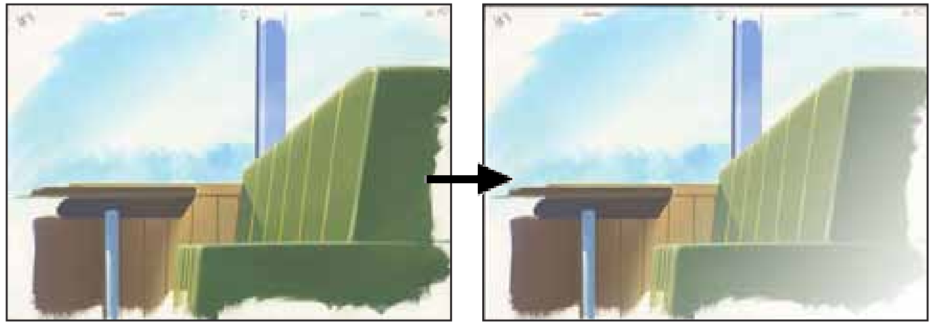

Layer Palette
Opacity:
100 %
Adjustment Layer
Raster General Layer
Tone Curve
Brightness/Contrast
Adjustment Layer

To change the order, drag and drop at the new position.

Alpha channel

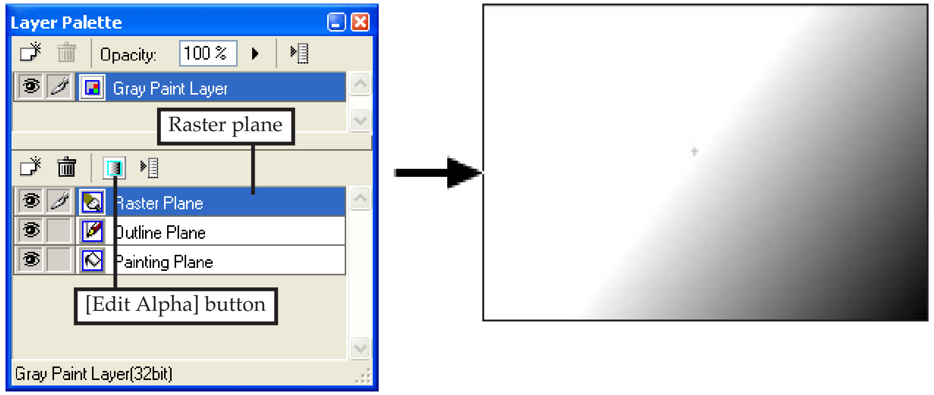
Editing the alpha channel

The procedure for editing the alpha channel using the [Raster Plane] is as follows.



1. Open the alpha channel.

Select [Raster Plane] from any of the layers on the [Layer Palette]. Click the [Edit Alpha] button to open the [Alpha Channel]. There, create a mask using Gradient tool, for example.


Layer Palette
Opacity:
100 %
Gray Paint Layer
Raster plane
Raster Plane
Outline Plane
Painting Plane
[Edit Alpha] button
Gray Paint Layer(32bit)

Tips

[Edit Alpha] is valid only for the [Raster Plane] of the selected layer.

RETAS!PRO

Chapter 12

Batch Processing

Basic operations using Batch Processing

"Batch Processing" is a processing in which a series of predefined procedures is executed automatically.
In RETAS!PRO HD, batch processing is executed using the [Batch Palette].

Batch processing operations

The procedure for configuring [Input], [Batch Processing Items], and [Output] which are the three main components of the [Batch Palette] is as indicated below.

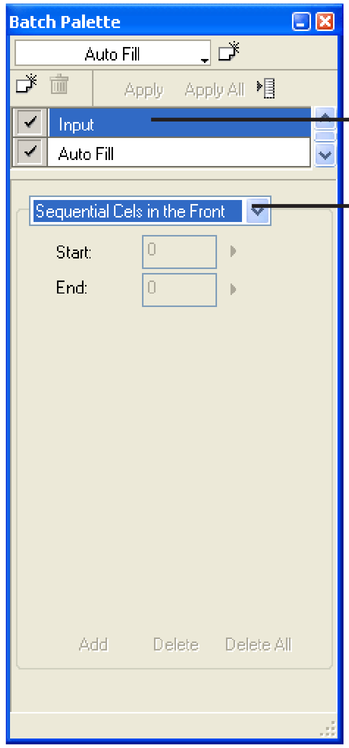
Input (scanner)

Batch settings (batch processing)

Output (save destination)

1. Configure the batch processing input settings.

Specify the device from which the target image data will be input.


Batch Palette
Auto Fill
Apply
Apply All
Input
Auto Fill
Sequential Cels in the Front
Start:
End:
Add
Delete
Delete All

(Screen image from PaintMan HD)

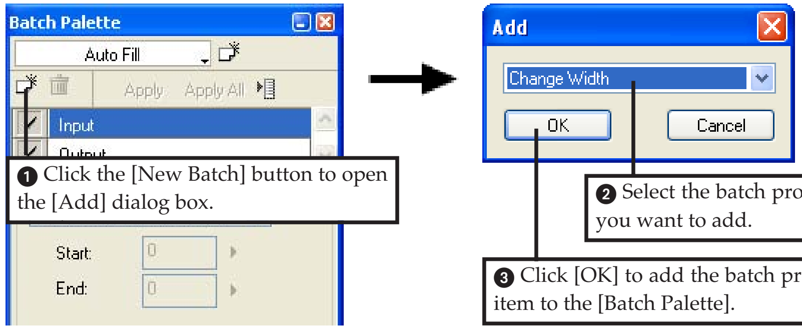
❶ Select [Input] menu.

❷ Select the input method.

- **[Folder]**
Target of the batch processing is a folder.
- **[File]**
Target of the batch processing is a file.
- **[Sequential Cels in the Front]**
Target of the batch processing is the sequential files within which the image currently shown in the front is included (sequential files loaded to the file previewer).

2. Add a batch processing item.

You can add a batch processing item to the [Batch Palette].


Batch Palette
Auto Fill
Apply
Apply All
Input
Output
Start:
End:
Add
Change Width
OK
Cancel

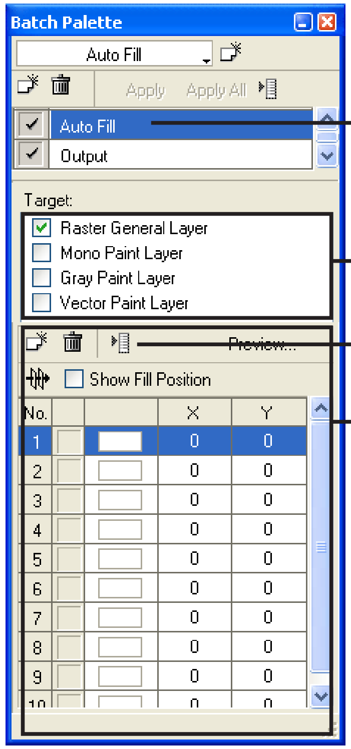
❶ Click the [New Batch] button to open the [Add] dialog box.

❷ Select the batch processing item you want to add.

❸ Click [OK] to add the batch processing item to the [Batch Palette].

3. Configure the batch processing items and select the target layer.

Configure each of the batch setting items and select the target layer.


Batch Palette
Auto Fill
Apply
Apply All
Auto Fill
Output
Target:
☑ Raster General Layer
☐ Mono Paint Layer
☐ Gray Paint Layer
☐ Vector Paint Layer
Preview...
☐ Show Fill Position
No.
X
Y

(Screen image from PaintMan HD)

❶ Select the batch processing item to configure.

❸ Select the batch processing target layer.

Show menu

❷ Configure the settings specific to the batch processing item. For details, see:
- "Batch processing items" in this chapter.
- "Filters" in "Chapter 11".

Tips

The batch processing will not be executed if no target layer is specified for a batch processing item that has [Target:] as one of the required entries.

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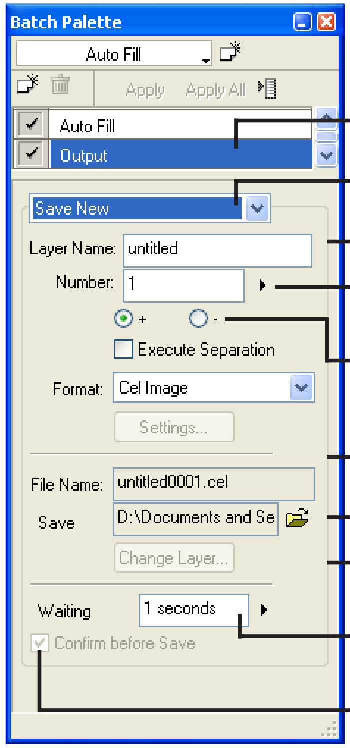
4. Configure the batch processing output settings.

Specify the data output settings for the batch processing.


Batch Palette
Auto Fill
Apply
Apply All
Auto Fill
Output
Save New
Layer Name: untitled
Number: 1
+
-
Execute Separation
Format: Cel Image
Settings...
File Name: untitled0001.cel
Save D:\Documents and Se
Change Layer...
Waiting 1 seconds
Confirm before Save

Screen example from PaintMan HD

❶ 1 Select [Output] menu.

❷ Select the save mode: [Save New], [Save Copy], or [Overwrite] (Save).

❻ Enter a filename.

❼ Enter a file number.

❽ Select [+] if you want to increment the number for each new file to save, or select [-] if you want to decrement for each new file to save.

❺ Select the image file format in which you want to save the data.

❸ Select the save folder.

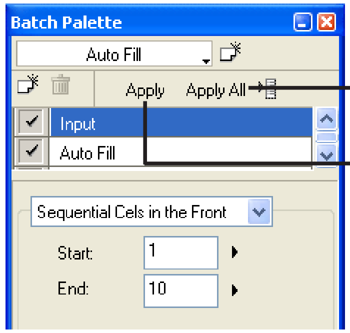
❹ Select the save cel folder.

You can specify a waiting time until the next file is opened after completing a batch processing item.

Select this check box if you want to confirm the processing result on the image before saving the data.

5. Execute.

Execute the batch processing when configuration of [Input], [Batch Processing Item], and [Output] including [Target] is complete.


Batch Palette
Auto Fill
Apply
Apply All
Input
Auto Fill
Sequential Cels in the Front
Start: 1
End: 10

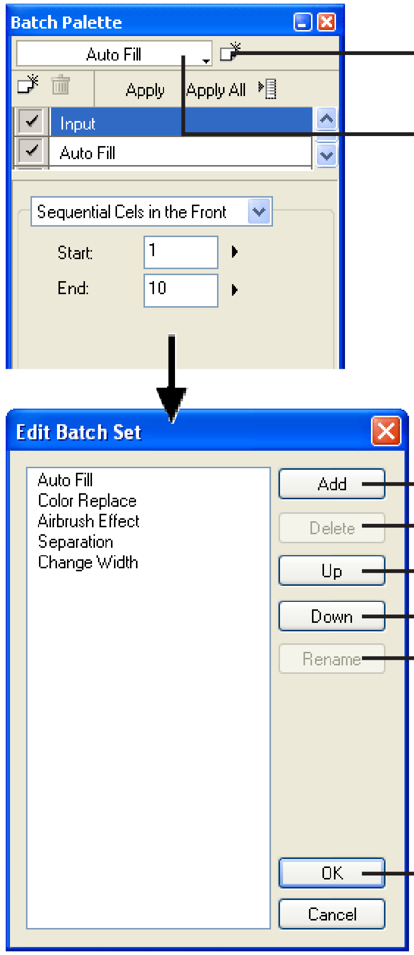
Click [Apply All] to execute the batch processing on all of the images selected in Input.

Click [Apply] to execute the batch processing only on the image currently shown in the [Cel] window.

(Screen image from PaintMan HD)

Saving the batch processing items list

The procedure for saving a batch processing items list is as follows. You may have multiple lists saved.


Batch Palette
Auto Fill
Apply
Apply All
Input
Auto Fill
Sequential Cels in the Front
Start: 1
End: 10
Edit Batch Set
Auto Fill
Color Replace
Airbrush Effect
Separation
Change Width
Add
Delete
Up
Down
Rename
OK
Cancel

❶ Click to open the [Edit Batch Set] dialog box that allows you to edit the batch processing items list.

Batch processing items list

❷ You can add/delete a batch processing item to/from the list.

You can change the order of a batch processing item in the list.

You can rename the batch processing list.

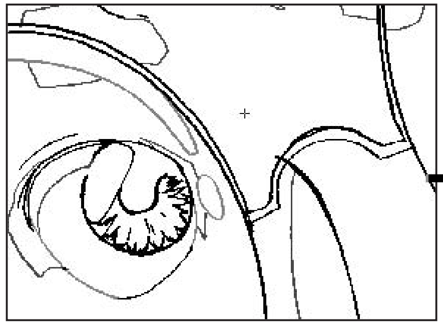
❸ Click [OK] to close the dialog.

Screen example from PaintMan HD

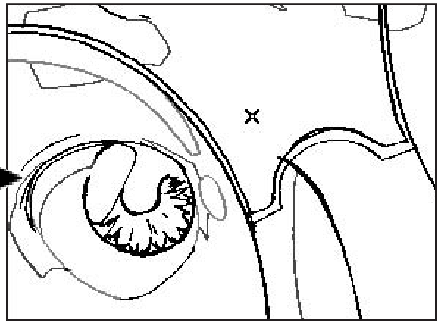
Batch processing items

AutoFill

This is a function that allows you to paint all subsequent images by painting one inbetween (image). This function is also called [Skewered Painting] and is effective for painting inbetweens with few movements. The procedure for executing an AutoFill by selecting [AutoFill] from the batch processing items under the [Batch Palette] is described



Original image

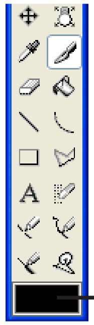


After processing

1. Open the Cel window.

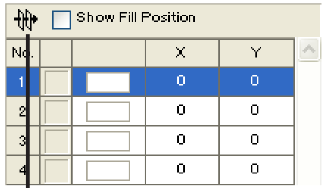
Open the window with the image on which you want to execute the processing.

2. Specify the color and the fill position (first color).



[Tool Palette]

❶ Set the color you want to use to the [Foreground Color] button.

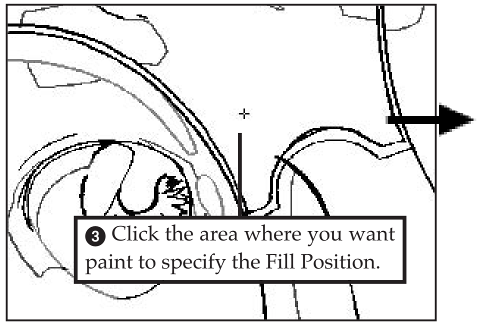


☐ Show Fill Position

No.			X	Y
1			0	0
2			0	0
3			0	0
4			0	0

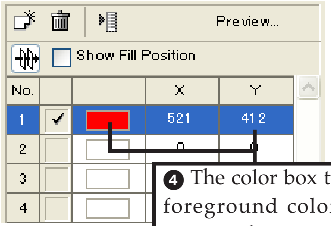
❷ Click [AutoFill].

[Batch Palette]



❸ Click the area where you want paint to specify the Fill Position.

[Cel] window



☐ Show Fill Position

No.			X	Y
1	✓	🟥	521	412
2			0	0
3				
4				

[Batch Palette]

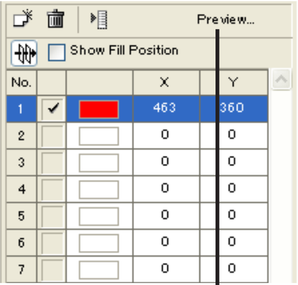
❹ The color box turns to the selected foreground color, and the coordinates of the specified Fill Position are entered in the X and Y fields.

Specify the second and subsequent colors using the same procedure in the second row onwards.

Tips

- Clicking [Show Fill Position] on the [Batch Palette] shows an [X] in the [Fill Position].
- Colors can be added or deleted using the [Add Items] and [Delete Items] in the show menu.
- All specified colors can be cleared using [Clear] in the show menu.

3. Preview.

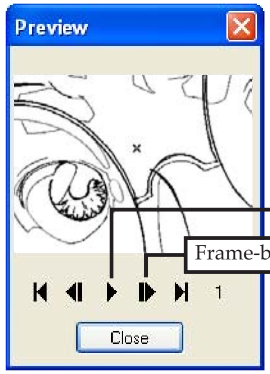


☐ Show Fill Position

No.			X	Y
1	✓	🟥	463	360
2			0	0
3			0	0
4			0	0
5			0	0
6			0	0
7			0	0

❶ Click [Preview] on the [Batch Palette] to open the [Preview] dialog box.

Original image

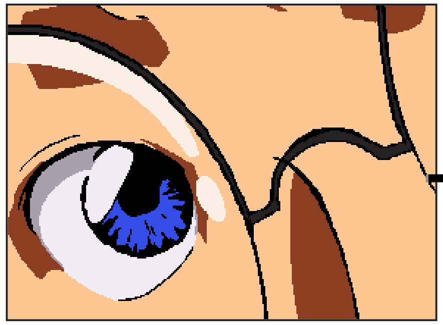


[Preview] panel

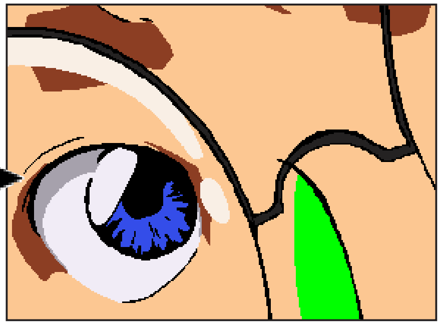
❷ View the sequential images consecutively and confirm that the specified coordinates are always within the intended area.

Color Replace

This function changes the colors in a series of images at once which is convenient for changing colors because a color was used by mistake, or because of a change in the color styling. The procedure for executing a Color Replace by selecting [Color Replace] from the batch processing items under the [Batch Palette] is described below.



Original image

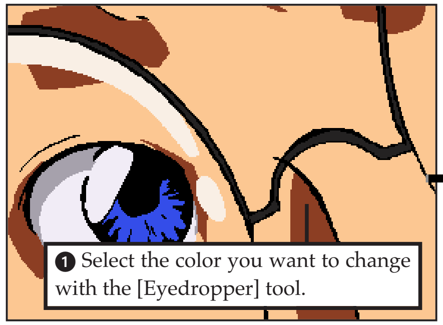


After processing

1. Open the Cel window.

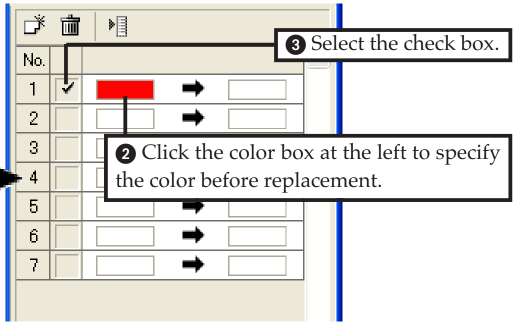
Open the window with the image on which you want to execute the processing.

2. Specify the original color (first color).



① Select the color you want to change with the [Eyedropper] tool.

[Cel] window

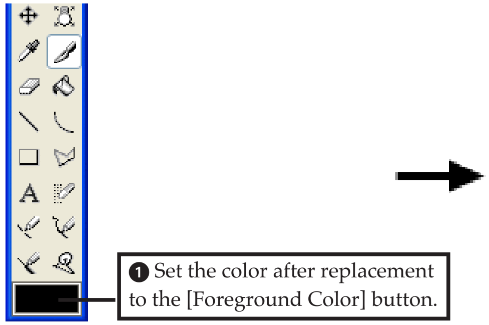


③ Select the check box.

② Click the color box at the left to specify the color before replacement.

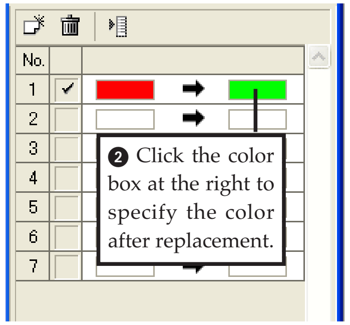
[Batch Palette]

3. Specify the target color (first color).



① Set the color after replacement to the [Foreground Color] button.

[Tool Palette]



② Click the color box at the right to specify the color after replacement.

[Batch Palette]

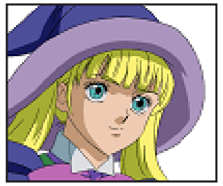
Tips

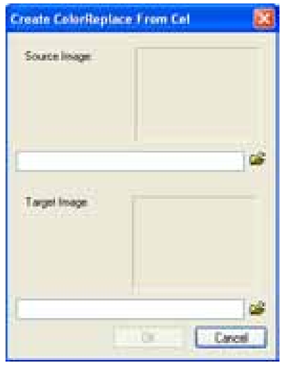
- The following options under the [Show Menu] allows you to save and load configured settings.
  1. [Save] - Allows you to save the settings as a **[ColorReplace Settings File] (extension: src)**.
  2. [Load] - Allows you to load a **[ColorReplace Settings File] (extension: src)**.
- Colors can be added or deleted using the [Add Items] and [Delete Items] in the show menu.
- All specified colors can be cleared using [Clear] in the show menu.
- For a [ColorReplace Settings File] to be loadable to RETAS!PRO Ver. 5, you must save it to Ver. 5 format (extension: crf) by selecting [Show Menu] → [Save...].

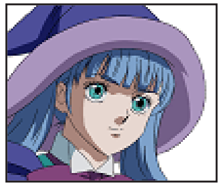
[ColorReplace Settings File]

Creating a ColorReplace Settings file from a cel

You can create a ColorReplace Settings file (src) from 2 cels by using the dialog box that appears when you select [Color] → [Create ColorReplace From Cel] from the [File] menu.







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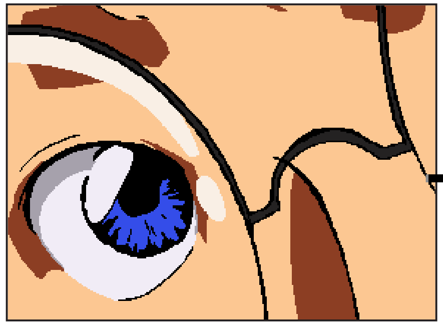
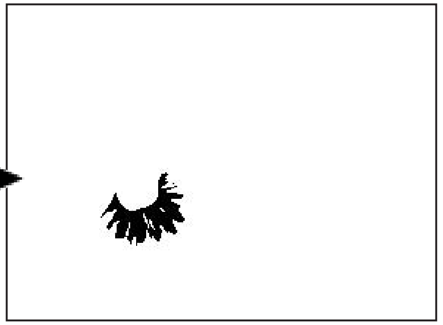
Separation

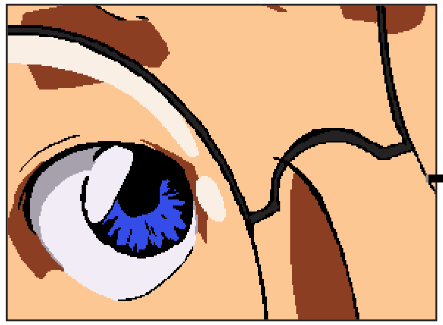
This is a function for extracting a specific color from an image and export it to an external file or transfer it to another layer, and is mainly used for masking. The procedure for executing a Separation by selecting [Separation] from the batch processing items under the [Batch Palette] is described below.



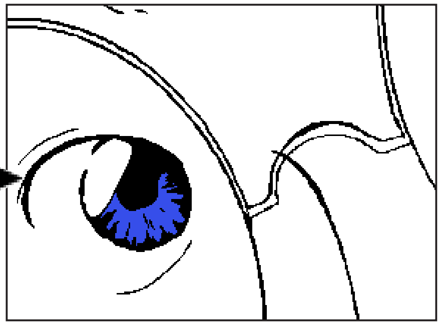
Original image



Only a specific color is exported to a external file



Original image

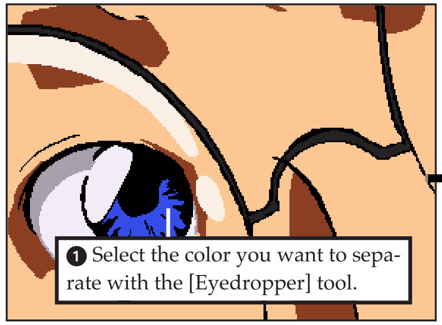


Transfer only the specific color to a different plane

1. Open the Cel window.

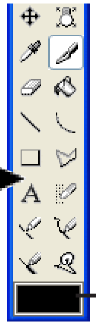
Open the window with the image on which you want to execute the processing.

2. Specify the color to separate (first color).



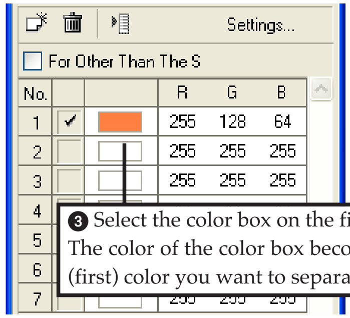
❶ Select the color you want to separate with the [Eyedropper] tool.

[Cel] window



❷ The [Foreground Color] button turns to the separated color.

[Tool Palette]



☐ For Other Than The S

No.			R	G	B
1	✓	🟧	255	128	64
2		☐	255	255	255
3		☐	255	255	255
4					
5					
6					
7					

❸ Select the color box on the first row. The color of the color box becomes the (first) color you want to separate.

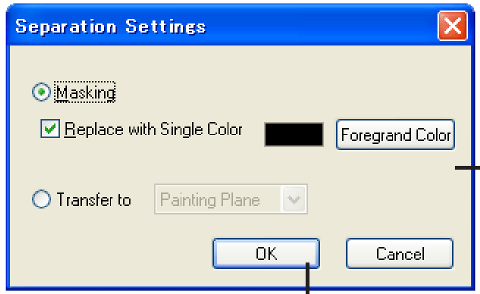
[Batch Palette]

Specify the second and subsequent colors using the same procedure in the second row onwards.

Tips

- Colors can be added or deleted using the [Add Items] and [Delete Items] in the show menu.
- All specified colors can be cleared using [Clear] in the show menu.

3. Configure the separation settings.



● Masking

☑ Replace with Single Color ■ Foreground Color

○ Transfer to Painting Plane

[Separation Settings] dialog box

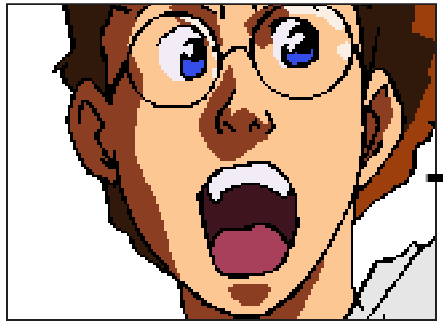
❶ Configure the separation settings.

- **[Masking]**
Creates a mask.
- **[Replace with Single Color]**
Replaces the separated color with a single specified color. Use the [Foreground Color] button to change the color.
- **Transfer to [Outline Plane]**
Transfers the separated color to the [Outline Plane].
- **Transfer to [Painting Plane]**
Transfers the separated color to the [Painting Plane].

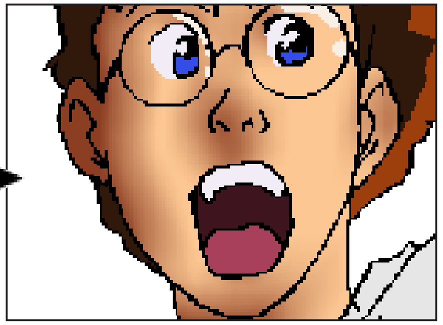
❷ Click [OK] to finish with the settings.

Airbrush Effect

[Airbrush Effect] is a processing for smoothing the edge between two colors as if airbrush has been applied. The procedure for applying an Airbrush Effect by selecting [Airbrush Effect] from the batch processing items under the [Batch Palette] is described below.



Original image

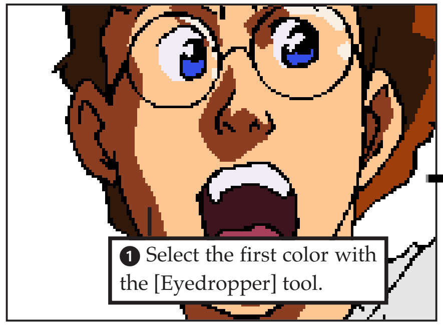


After Airbrush Effect

1. Open a [Cel] window.

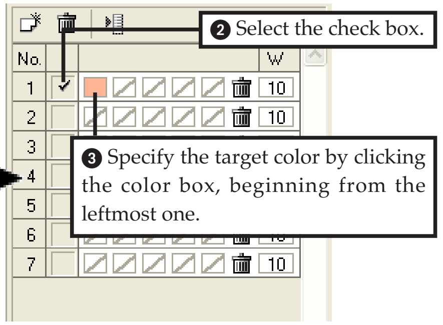
Open the window with the image on which you want to execute the processing.

2. Specify the target color (first color).



❶ Select the first color with the [Eyedropper] tool.

[Cel] window

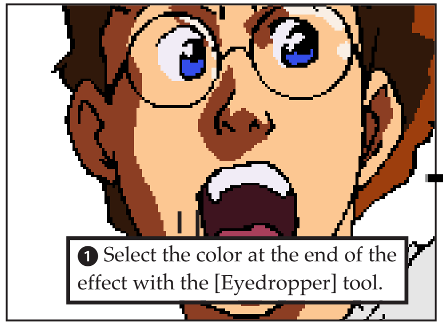


❷ Select the check box.

❸ Specify the target color by clicking the color box, beginning from the leftmost one.

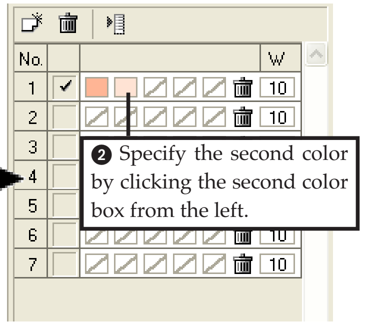
[Batch Palette]

3. Specify the color of the effect (second color).



❶ Select the color at the end of the effect with the [Eyedropper] tool.

[Cel] window

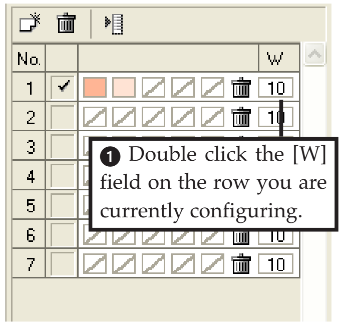


❷ Specify the second color by clicking the second color box from the left.

[Batch Palette]

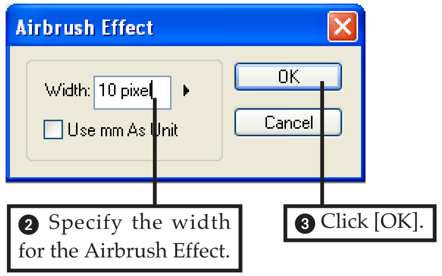
Specify the third and subsequent colors using the same procedure in the third color box onwards.

4. Configure the Airbrush Effect width.



❶ Double click the [W] field on the row you are currently configuring.

[Batch Palette]



Width: 10 pixel

☐ Use mm As Unit

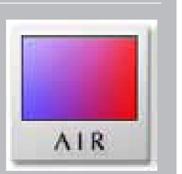
❷ Specify the width for the Airbrush Effect.

❸ Click [OK].

[Airbrush Effect Settings] dialog box

Tips

- The following options under the [Show Menu] allows you to save and load configured settings.
  1. [Save] - Allows you to save the settings as an **[Airbrush Effect Settings File] (extension: abf6)**.
  2. [Load] - Allows you to load an **[Airbrush Effect Settings File] (extension: abf6)**.
- Colors can be added or deleted using the [Add Items] and [Delete Items] in the show menu.
- All specified colors can be cleared using [Clear] in the show menu.
- For a [Airbrush Effect Settings File] to be loadable to RETAS!PRO Ver. 5, you must save it to Ver. 5 format (extension: abf) by selecting [Show Menu] → [Save...].

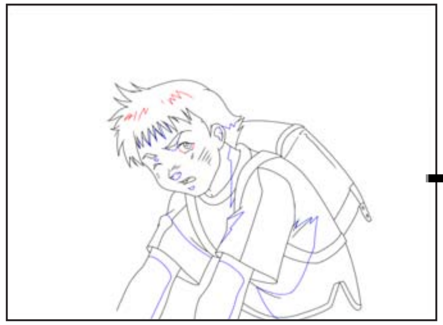


[Airbrush Effect Settings File]

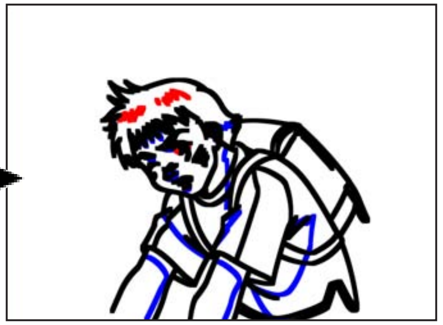
Change Width

This function changes the line width in multiple images at once.

The procedure for executing the Change Width is by selecting [Change Width] from the batch processing items under the [Batch Palette] as described below.



Original image

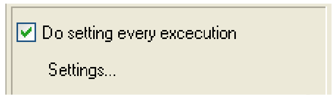


After Change Width

1. Open the Cel window.

Open the window with the image on which you want to execute the processing.

2. Specify the line width.

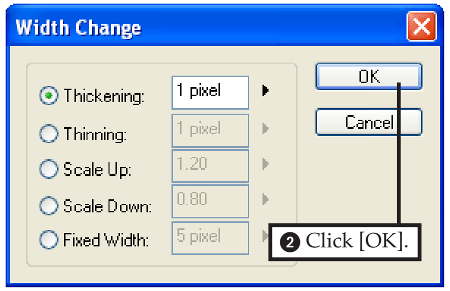


☑ Do setting every excecution

Settings...

[Batch Palette]

❶ Click [Settings...].



Width Change

● Thickening: 1 pixel

○ Thinning: 1 pixel

○ Scale Up: 1.20

○ Scale Down: 0.80

○ Fixed Width: 5 pixel

❷ Click [OK].

[Change Width] dialog box

- **[Thickening]**
  Thickens the line width by the specified value.
- **[Thinning]**
  Thins the line width by the specified value.
- **[Scale Up]**
  Enlarges the line by the specified percentage.
- **[Scale Down]**
  Reduces the line by the specified percentage.
- **[Fixed Width]**
  Fixes the line width to the specified value.

Tips

Selecting [Do setting every execution] on the [Batch Palette] opens the [Change Width] dialog box for each of the cels to be processed so that you can configure the settings.

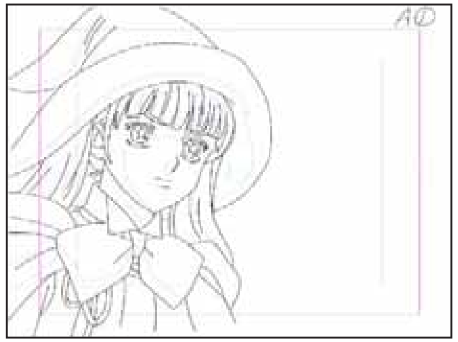
Chapter 13

Direction and Text

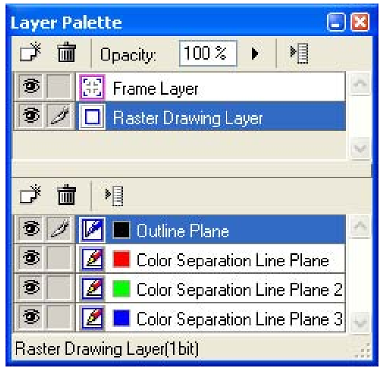
Entering a shooting direction

Creating a framing

The procedure for creating a framing for entering shooting directions is as follows.



Original image


Layer Palette
Opacity: 100 %
Frame Layer
Raster Drawing Layer
Outline Plane
Color Separation Line Plane
Color Separation Line Plane 2
Color Separation Line Plane 3
Raster Drawing Layer(1bit)

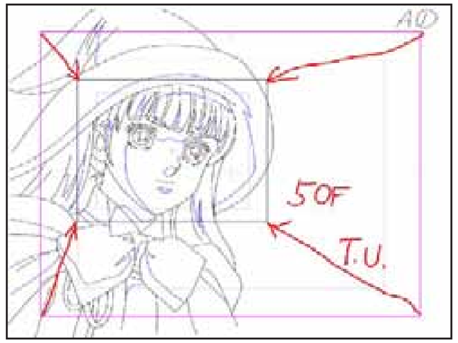
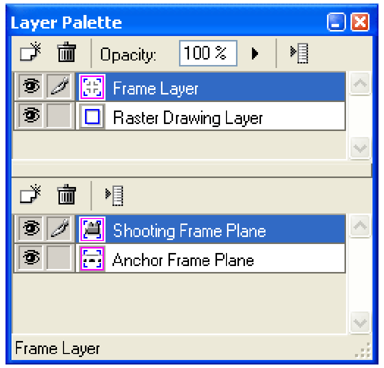


Image with [Shooting Frame] plane

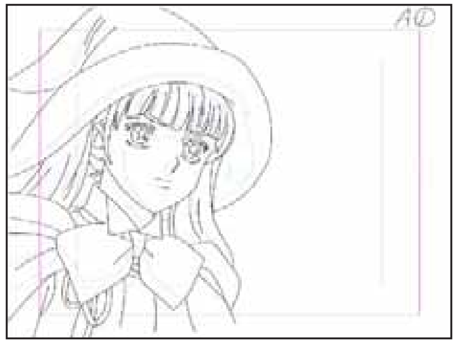

Layer Palette
Opacity: 100 %
Frame Layer
Raster Drawing Layer
Shooting Frame Plane
Anchor Frame Plane
Frame Layer

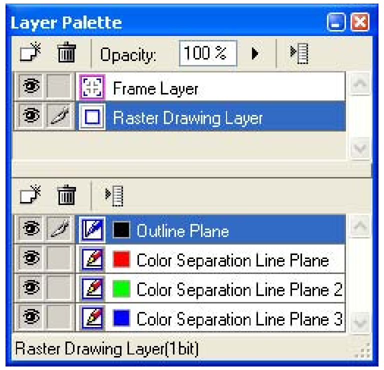
Shooting frame plane

- [Frame Layer] is a layer where you can create a frame for entering a shooting direction (frame scale for T.U. (track up), for example).
- You can also enter other directions related to shooting direction on the [Direction Layer] so that they are conveyed to downstream processes for sure.

1. Open the Cel window.

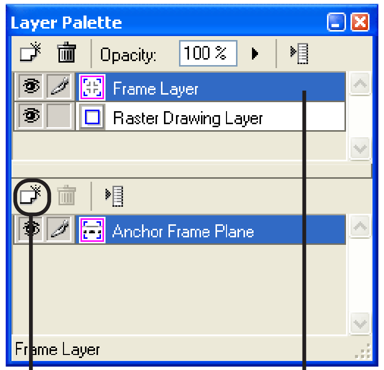
When inbetweening is finished, double click an inbetween thumbnail from the [File Browser] and open the Cel window.




Layer Palette
Opacity: 100 %
Frame Layer
Raster Drawing Layer
Outline Plane
Color Separation Line Plane
Color Separation Line Plane 2
Color Separation Line Plane 3
Raster Drawing Layer(1bit)

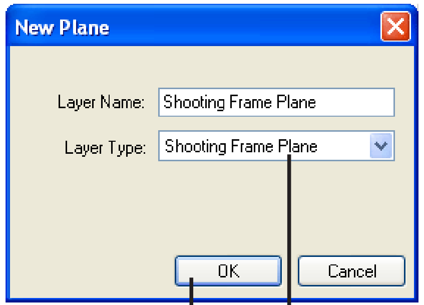
2. Create a new shooting frame plane.

Click the [Create New Plane] button on the [Layer Palette] and open the [New Plane] dialog box. There, create a [Shooting Frame Plane].


Layer Palette
Opacity: 100 %
Frame Layer
Raster Drawing Layer
Anchor Frame Plane
Frame Layer

❶ Select [Frame Layer].

❷ Click [Create New Plane].


New Plane

Layer Name: Shooting Frame Plane

Layer Type: Shooting Frame Plane

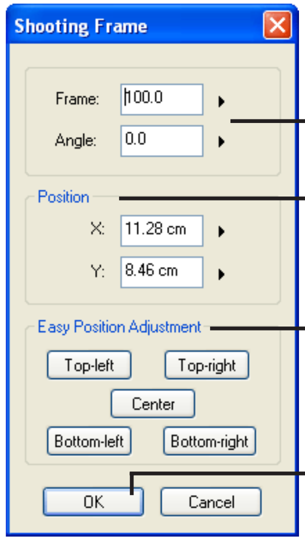
OK
Cancel

❶ Select [Shooting Frame Plane].

❷ Click [OK].

3. Configure the shooting frame plane.

Configure the detailed settings for the [Shooting Frame Plane] using the [Shooting Frame] dialog box.



Shooting Frame

Frame: 100.0

Angle: 0.0

Position

X: 11.28 cm

Y: 8.46 cm

Easy Position Adjustment

Top-left
Top-right
Center
Bottom-left
Bottom-right
OK
Cancel

Specify the size and angle of the [Frame] to create.

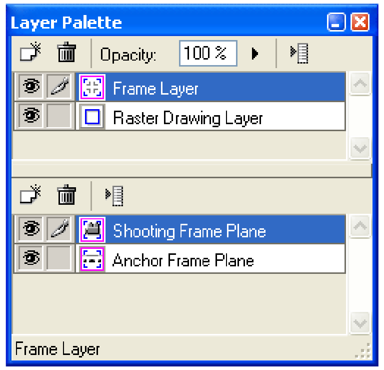
Specify the position (coordinates) for the [Frame].

Click either of these buttons to determine the home position of the [Frame] easily.

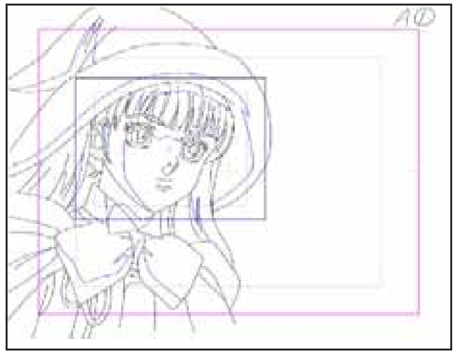
Clicking [OK] confirms the settings and creates the [Shooting Frame Plane].

4. Completion

The [Shooting Frame Plane] is added to the [Layer Palette] and the [Shooting Frame] appears on the [Cel] window view.



Layer Palette
Opacity: 100 %
Frame Layer
Raster Drawing Layer
Shooting Frame Plane
Anchor Frame Plane
Frame Layer



Tips

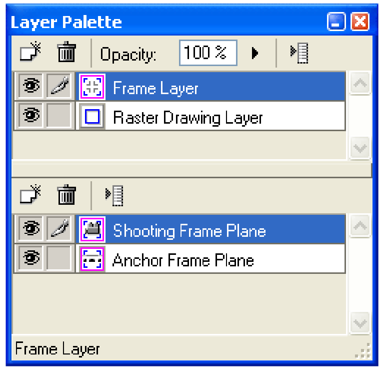
The position and size of the [Shooting Frame] can also be adjusted by dragging on the screen with the [Shooting Frame] dialog box open.

Entering directions using drawing tools

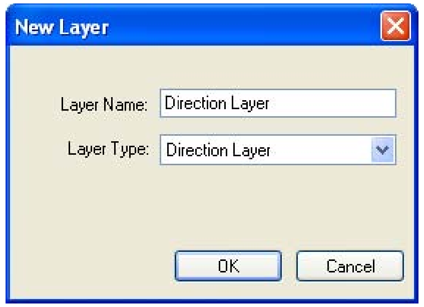
The procedure for entering directions using arrows and / or text after framing is as follows.

1. Create a new direction layer.

Click the [Create New Layer] button on the [Layer Palette] and open the [New Layer] dialog box. There, create a [Direction Layer].



Layer Palette
Opacity: 100 %
Frame Layer
Raster Drawing Layer
Shooting Frame Plane
Anchor Frame Plane
Frame Layer



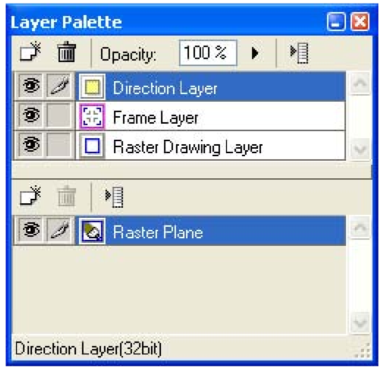
New Layer

Layer Name: Direction Layer

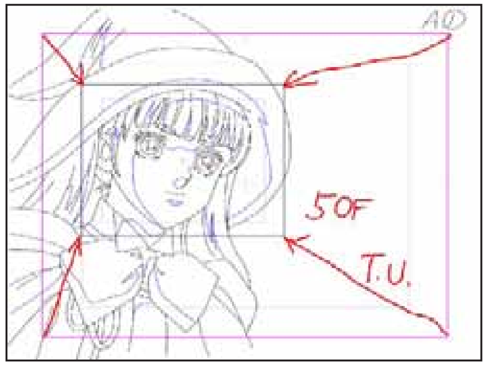
Layer Type: Direction Layer

2. Write the shooting directions.

The [Direction Layer] appears on the [Layer Palette]. Select a drawing tool from the [Tool Palette]. Write the directions using arrows and text on the [Cel] window.



Layer Palette
Opacity: 100 %
Direction Layer
Frame Layer
Raster Drawing Layer
Raster Plane
Direction Layer(32bit)



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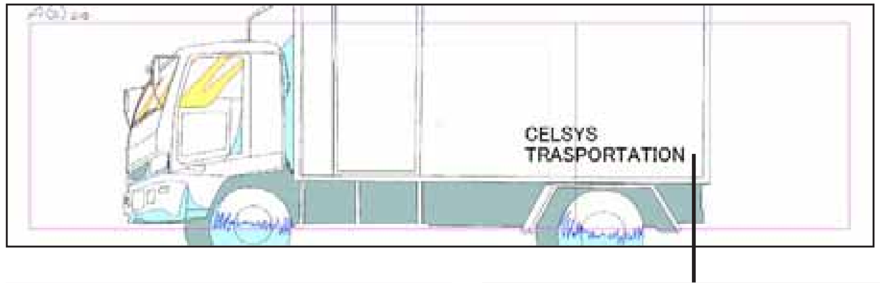
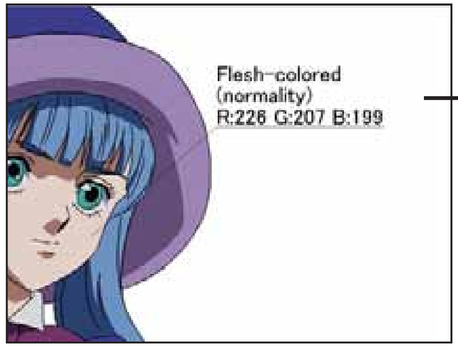
Text function

Types of text function

The text function is a function that allows you to write directions on an image, or enter a text that will be part of an image.



Example of writing on the text layer



Example of call-out with RGB values indication using 256 levels.

Text layer

- The entered text is processed as object and not as part of a drawing which allows you to edit it later on if necessary.

Direction text layer

- The entered text is processed as object and not as part of a drawing which allows you to edit it later on if necessary.
- This is a layer that can be excluded from the layers to export.

Drawing on a selected raster plane

- The entered text is processed as part of the raster drawing.

Tips

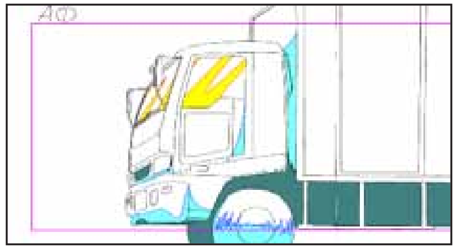
- Texts can include Line Feed (LF). Remarks can be written using call-outs.
- A call-out to a colored part allows input of RGB values.

Entering a text

The procedure for entering a text that can be edited later on the [Text Layer] is as follows.

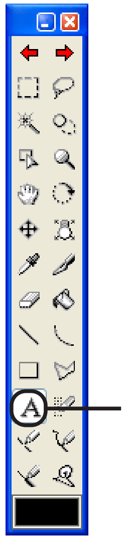
1. Open the Cel window.

Double click the target inbetween thumbnail from the [File Browser].



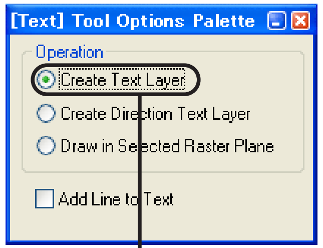
2. Configure the Text tool options palette.

Select [Text] tool from the [Tool] Palette. Then select [Create Text Layer] on the [Text] tool options palette.



Select [Text] tool from the [Tool] palette.

STYLOS HD [Tool] palette



[Text] Tool Options Palette

Operation

● Create Text Layer

○ Create Direction Text Layer

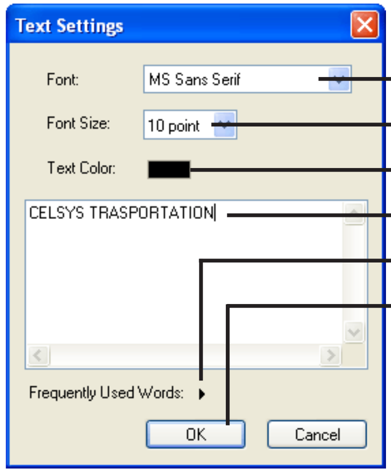
○ Draw in Selected Raster Plane

☐ Add Line to Text

Select [Create Text Layer].

3. Enter the text.

Click anywhere inside the [Cel] window to open the [Text Settings] dialog box. There, specify [Font], [Font Size], [Text Color] accordingly and enter the text in [Text Box].



Text Settings

Font: MS Sans Serif

Font Size: 10 point

Text Color:

CELSYS TRASPORTATION

Frequently Used Words:

Select the font.

Select the font size.

Select the font color.

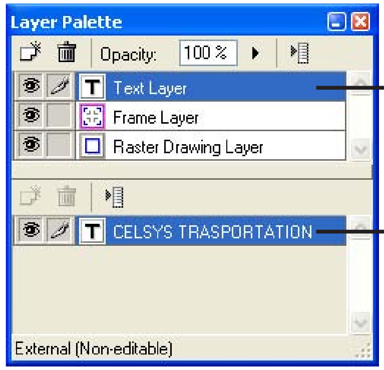
Enter the text.

Allows you to select frequently used terms.

Click [OK] to create the [Text Layer].

4. Completion

The [Text Layer] is created, and the [Text Plane] named using the text you entered is added to the [Layer Palette].



Layer Palette

Opacity: 100 %

Text Layer

Frame Layer

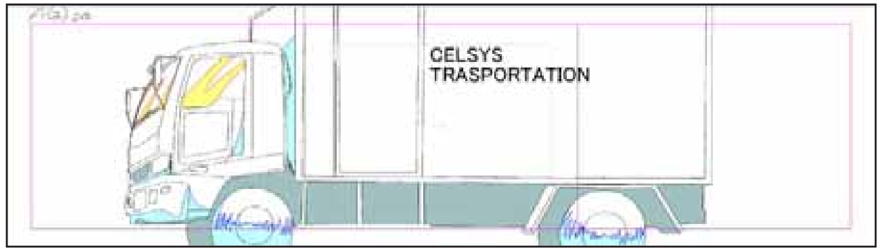
Raster Drawing Layer

CELSYS TRASPORTATION

External (Non-editable)

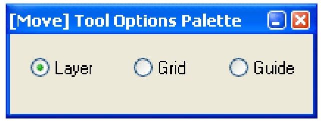
Created [Text Layer]

[Text Plane] name is the entered text.



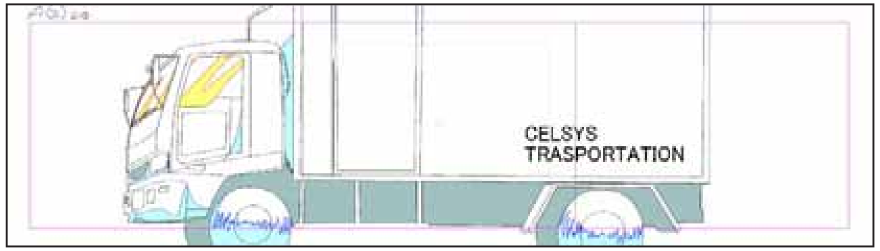
5. Moving a text layer

Select [Move] tool from the [Tool] Palette. Then select [Layer] on the [Move] tool options palette. Check that the [Text Layer] is selected on the [Layer Palette]. Then drag to move the text position in the [Cel] window.



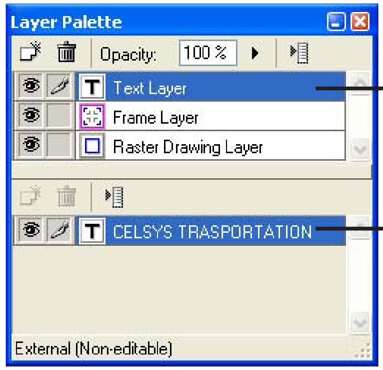
[Move] Tool Options Palette

● Layer ○ Grid ○ Guide



6. Changing the text settings

Select [Text Layer] from the [Layer Palette], then double click the name field of the target text on the [Text Plane] to open the [Text Settings] dialog box that allows you to change the content of the text, or the font size etc.



Layer Palette

Opacity: 100 %

Text Layer

Frame Layer

Raster Drawing Layer

CELSYS TRASPORTATION

External (Non-editable)

❶ Select [Text Layer].

❷ Double click the name field on the [Text Plane] to open the [Text Settings] dialog box.

Tips

- The [Text] tool can be used to move a [Text Layer], also a one including call-out. Selecting on the call-out line moves the whole call-out. Selecting the call-out text part moves only the call-out text box with the call-out line end fixed.
- The [Text Settings] dialog box can also be opened by double clicking the text shown on the screen with the [Text] tool.

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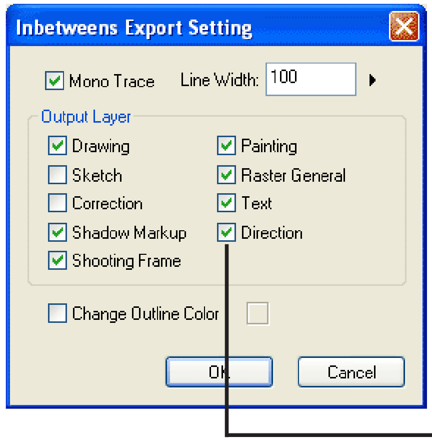
Entering a direction text

The procedure for creating a [Direction Text Layer] with [Direction Layer] attributes where you can enter a text that can be edited later on is as indicated below.

Export of the [Direction Text Layer] can be turned off using a dialog box.



Inbetweens Export Setting

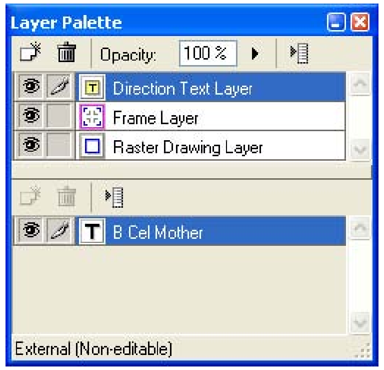
☑ Mono Trace Line Width: 100

Output Layer

☑ Drawing	☑ Painting
☐ Sketch	☑ Raster General
☐ Correction	☑ Text
☑ Shadow Markup	☑ Direction
☑ Shooting Frame	

☐ Change Outline Color

STYLOS HD [Inbetweens Export Setting] dialog box



Layer Palette

Opacity: 100 %

- Direction Text Layer
- Frame Layer
- Raster Drawing Layer

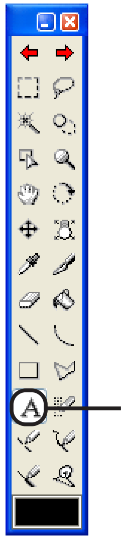
- B Cel Mother

External (Non-editable)

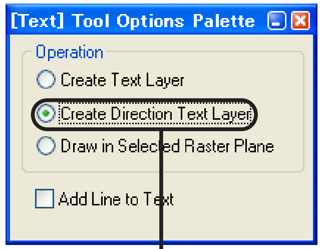
Deselecting [Direction] in the export setting dialog box, excludes both [Direction Layer] and [Direction Text Layer] from the export.

Configuring the text tool options palette

The procedure for creating a [Create Text Layer] is the same as that for the [Text Layer] though the tool options palette needs to be configured as shown below.



Select [Text] tool from the [Tool palette].



[Text] Tool Options Palette

Operation

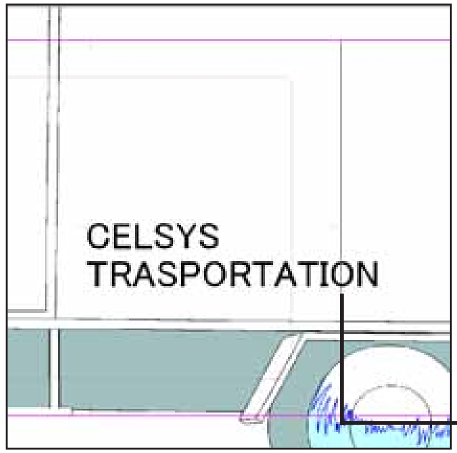
○ Create Text Layer
● Create Direction Text Layer
○ Draw in Selected Raster Plane

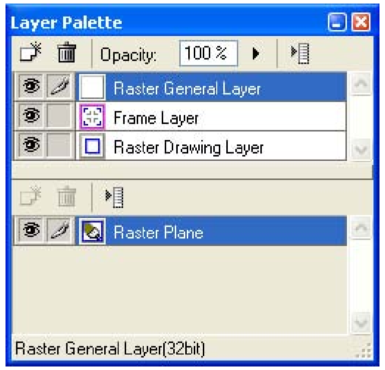
☐ Add Line to Text

Select [Create Direction Text Layer] on the [Text] tool options palette.

Entering a text as raster image

The procedure for entering a text to the raster plane as image is as follows. Note that this text cannot be edited later.





Layer Palette

Opacity: 100 %

- Raster General Layer
- Frame Layer
- Raster Drawing Layer

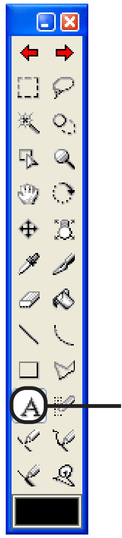
- Raster Plane

Raster General Layer(32bit)

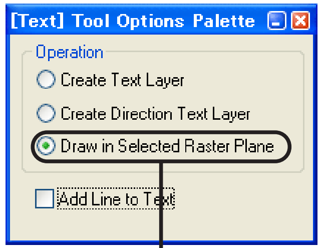
Open the image to which you want to add a text as image.

Configuring the text tool options palette

The procedure for creating a [Create Text Layer] is the same as that for the [Text Layer] though the tool options palette needs to be configured as shown below.



Select [Text] tool from the [Tool] palette.



[Text] Tool Options Palette

Operation

○ Create Text Layer
○ Create Direction Text Layer
● Draw in Selected Raster Plane

☐ Add Line to Text

Select [Text] tool from the [Tool] Palette. Then select [Draw in Selected Raster Plane] on the [Text] tool options palette.

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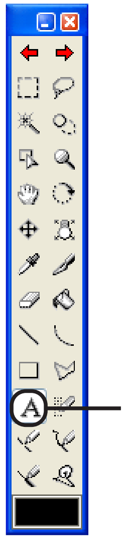
Entering a call-out

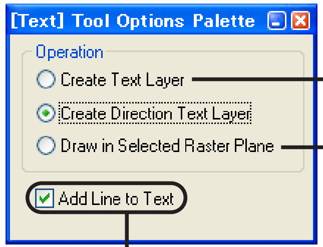
A call-out allows you to add a line as well as enter RGB value along with a text.

Configuring the text tool options palette

The procedure is the same as that for the basic [Text Layer] though the tool options palette needs to be configured as shown below.



Select [Text] tool from the [Tool] palette.



[Text] Tool Options Palette

Operation

○ Create Text Layer

● Create Direction Text Layer

○ Draw in Selected Raster Plane

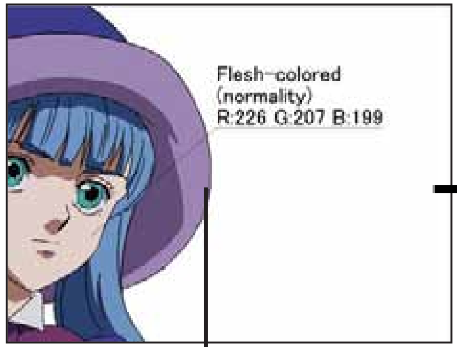
☑ Add Line to Text

Select the [Add Line To Text] check box.

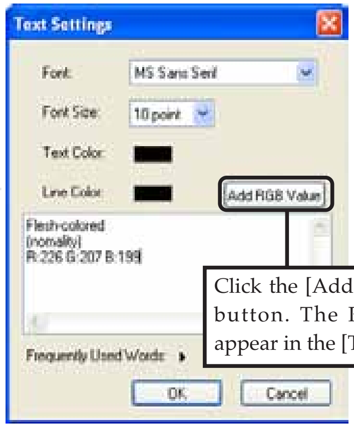
Select [Text] tool from the [Tool Palette]. Then select one of these [Operations] on the [Text] tool options palette.

Adding line and RGB value

The procedure for entering a text is the same as for the [Text Layer]. The line and the RBG value can be added through the operation described below.



Drag the position where you want to add the line. The [Text Settings] dialog box appears.



Text Settings

Font: MS Sans Serif

Font Size: 10 point

Text Color: ■

Line Color: ■ Add RGB Value

Flesh-colored
(normality)
R:226 G:207 B:199

Frequently Used Words ▸

OK Cancel

Click the [Add RGB Value] button. The RGB values appear in the [Text Box].

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RETAS!PRO

Chapter 14

Redoing an operation

Redo and revert

Undo

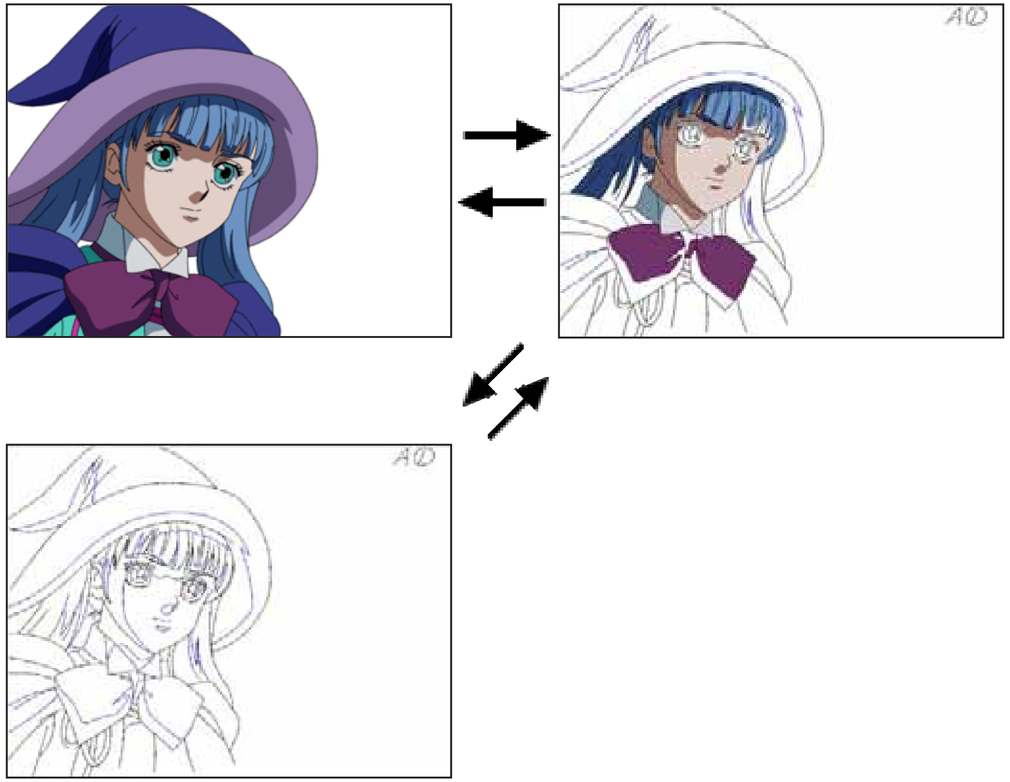
Undoes the previous operation. This command allows you to undo multiple operations. (Maximum 20)

Redo

Redoes the previous operation. This command allows you to redo multiple operations. (Maximum 20)

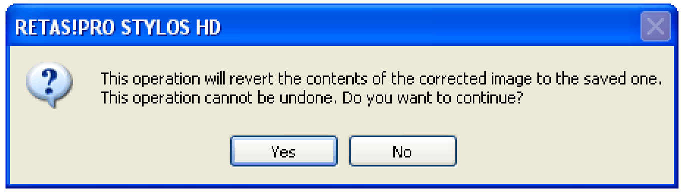
1. Select the command.

To undo or redo, select [Undo] or [Redo] from the [Edit] menu.



Revert

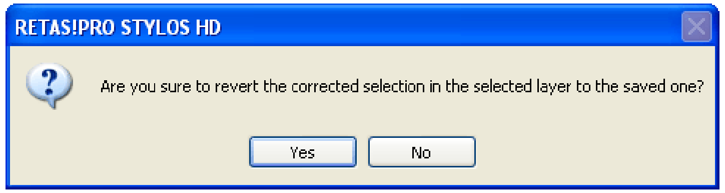
Returns the content to the last saved one. Use this command to recover from a wrong operation or when you want to discard all the changes made.


RETAS!PRO STYLOS HD

This operation will revert the contents of the corrected image to the saved one.
This operation cannot be undone. Do you want to continue?

Revert Layer Partially

Returns a selected part of a layer to the last saved content. Use this command to recover from a wrong operation or when you want to discard all the changes made.


RETAS!PRO STYLOS HD

Are you sure to revert the corrected selection in the selected layer to the saved one?

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Completion and Output

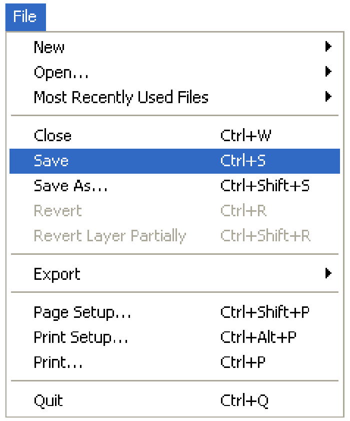
Saving a file

Save

The procedure for saving the content of a completed job or operation, or the contents at given points of a job is as follows.

1. Select the menu.

Select [Save] from the [File] menu. The data in the window overwrites the previously saved content.


File
New
Open…
Most Recently Used Files
Close Ctrl+W
Save Ctrl+S
Save As… Ctrl+Shift+S
Revert Ctrl+R
Revert Layer Partially Ctrl+Shift+R
Export
Page Setup… Ctrl+Shift+P
Print Setup… Ctrl+Alt+P
Print… Ctrl+P
Quit Ctrl+Q

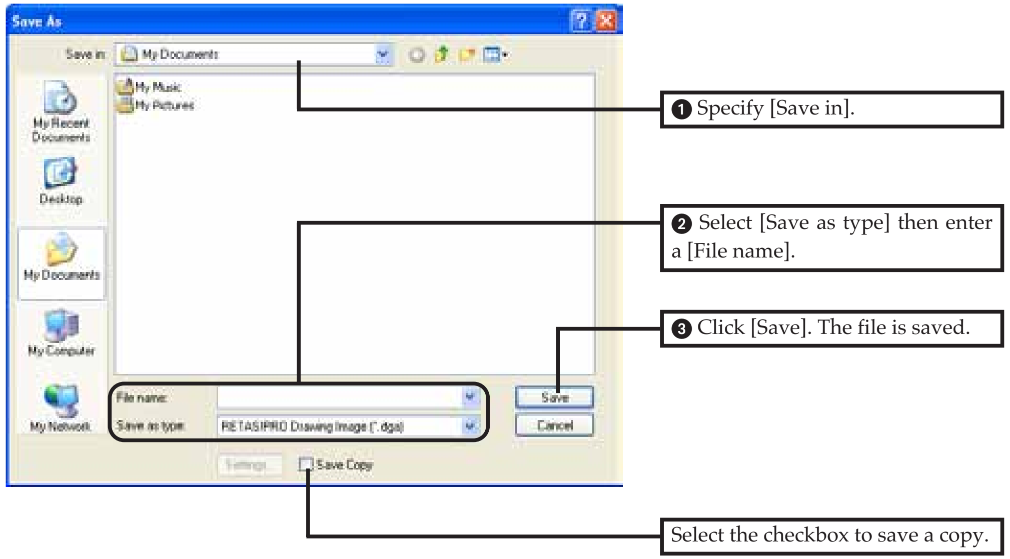
(STYLOS HD screen image)

Save As

The procedure for saving a content under a different name or format is as follows.

1. Select the menu.

Select [Save As...] from the [File] menu. The [Save As] dialog box appears.


Save As
Save in:
My Documents
My Music
My Pictures
My Recent Documents
Desktop
My Documents
My Computer
My Network
File name:
Save as type:
RETAS!PRO Drawing Image (*.dga)
Save
Cancel
Settings
☐ Save Copy

❶ Specify [Save in].

❷ Select [Save as type] then enter a [File name].

❸ Click [Save]. The file is saved.

Select the checkbox to save a copy.

Tips

Saving a scene image out-of-the corresponding scene folder is not recommended except when there are special reasons as it may be a likely cause of file management related troubles.

Exporting to general raster image format

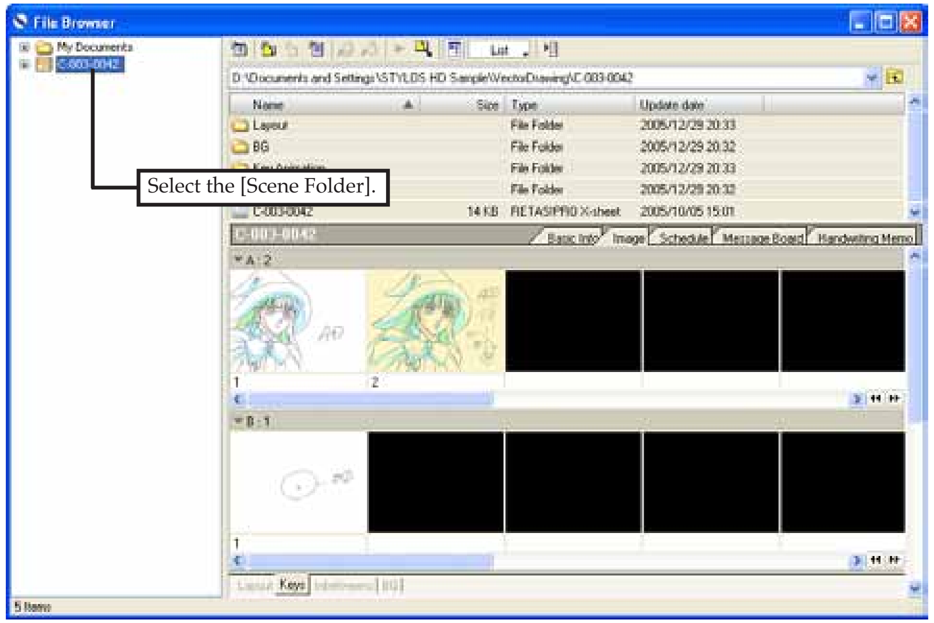
Exporting on a scene basis

The procedure for exporting RETAS!PRO images to general raster image format images on a scene basis is as follows. This is convenient when you want to use the data with a different software.

Supported export formats: BMP, PICT, PNG, RAW, SGI, SOFTIMAGE, TARGA, TIFF

1. Select the scene folder.

Open the [File Browser] from the [Window] menu. Then, select the scene folder you want to export from the [File Browser].


File Browser
My Documents
C-003-0042
List
Basic Info
Image
Schedule
Message Board
Handwriting Memo
A : 2
B : 1
Layout
Keys
Inbetween
BG
5 Items

D:\Documents and Settings\STYLOS HD Sample\VectorDrawing\C-003-0042

Name	Size	Type	Update date
Layout		File Folder	2005/12/29 20:33
BG		File Folder	2005/12/29 20:32
Key Animation		File Folder	2005/12/29 20:33
		File Folder	2005/12/29 20:32
C-003-0042	14 KB	RETAS!PRO X-sheet	2005/10/05 15:01

Select the [Scene Folder].

2. Select the command.

Select [Export...] → [Raster...] from the [File] menu. The [Export Scene Folder] dialog box appears.

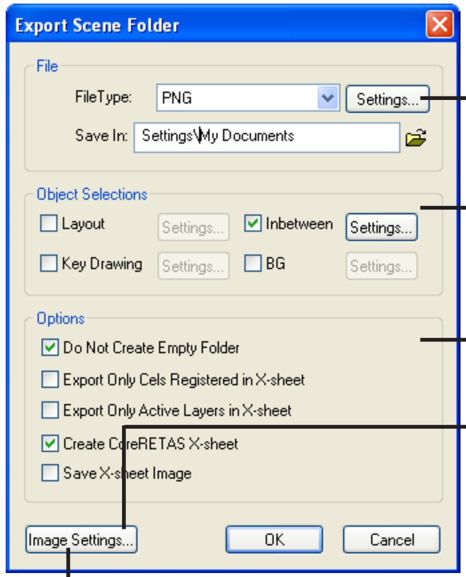
Tips

An alternative method for opening the [Export Scene Folder] dialog box is as follows.

- Click [Show Menu] on the [File Browser], then select [Export] → [Raster...] from the menu that appears.

3. Configure the Export Scene Folder dialog box.

Configure each of the items under [File], [Object Selections], and [Options].


Export Scene Folder
Settings...
Settings...
Settings...
Settings...
Settings...
Image Settings...
OK
Cancel

File

FileType: PNG

Save In: Settings\My Documents

Object Selections

☐ Layout ☑ Inbetween

☐ Key Drawing ☐ BG

Options

☑ Do Not Create Empty Folder

☐ Export Only Cels Registered in X-sheet

☐ Export Only Active Layers in X-sheet

☑ Create CoreRETAS X-sheet

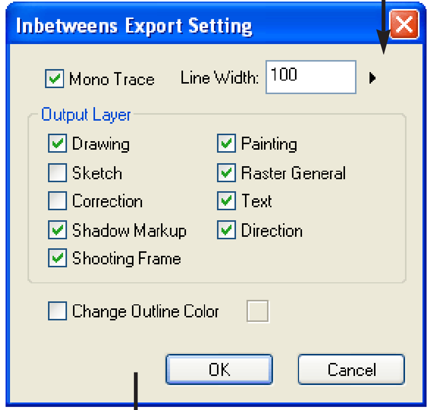
☐ Save X-sheet Image

Select the format to which you want to convert in [File Type].

Select the check boxes of the images you want to export. If [Inbetween] and [BG] are selected, clicking [Settings...] opens the corresponding [ccc Export Setting] dialog box.

Select the check box to enable the option.

Click to open the [Image Settings] dialog box.


Inbetweens Export Setting
OK
Cancel

☑ Mono Trace Line Width: 100

Output Layer

☑ Drawing ☑ Painting

☐ Sketch ☑ Raster General

☐ Correction ☑ Text

☑ Shadow Markup ☑ Direction

☑ Shooting Frame

☐ Change Outline Color

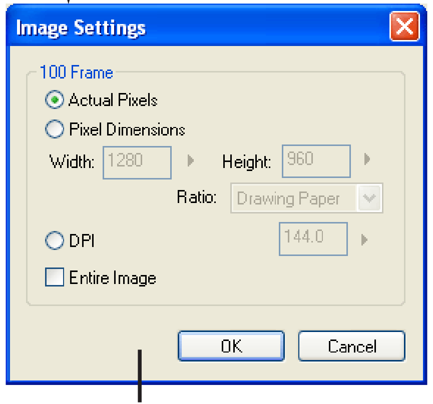


Image Settings
OK
Cancel

100 Frame

● Actual Pixels

○ Pixel Dimensions

Width: 1280 Height: 960

Ratio: Drawing Paper

○ DPI 144.0

☐ Entire Image

Configure the size of the images to export, DPI, etc.

Specify the layers to include in the export and other items.

[Mono Trace], [Line Width], [Change Outline Color] are present in STYLOS HD only, and replaced with [Anti-aliasing] in TraceMan HD and PaintMan HD.

4. Completion

Click [OK] in the [Export Scene Folder] dialog box. The scene folder is exported.

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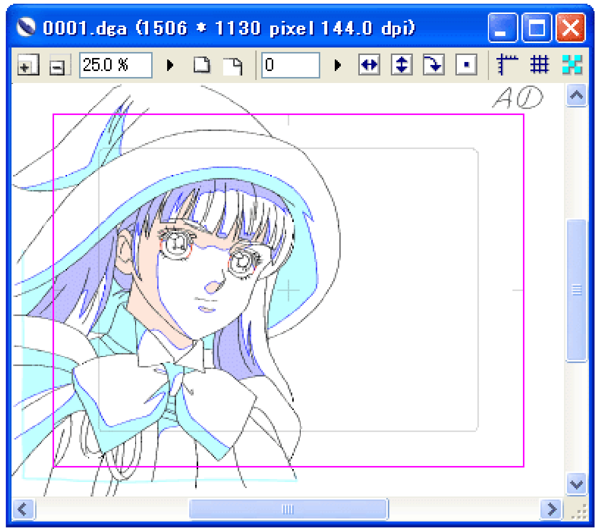
Exporting on a cel stack basis

The procedure for exporting RETAS!PRO images to general raster image format images on a cel stack basis is as follows. This is convenient when you want to use the data with a different software.

Supported export formats: BMP, PICT, PNG, RAW, SGI, SOFTIMAGE, TARGA, TIFF

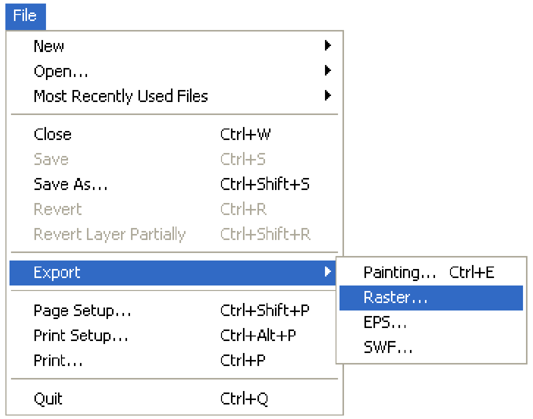
1. Open the image in the [Cel] window.

Open the image you want to export in the [Cel] window using the [File Browser], for example.



2. Select the command.

Select [Export] → [Raster...] from the [File] menu. The [Export Raster] dialog box appears.

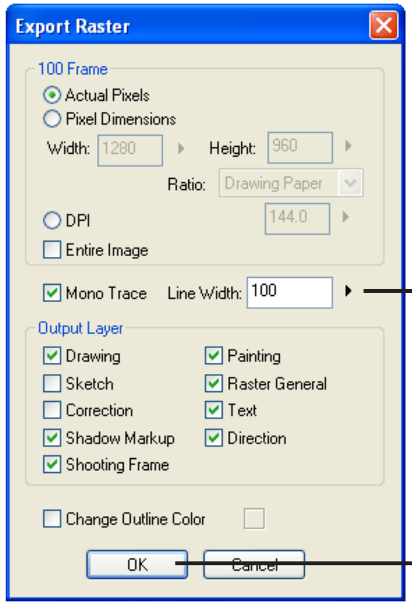

File

New	▸
Open...	▸
Most Recently Used Files	▸
Close	Ctrl+W
Save	Ctrl+S
Save As...	Ctrl+Shift+S
Revert	Ctrl+R
Revert Layer Partially	Ctrl+Shift+R
Export	▸
Page Setup...	Ctrl+Shift+P
Print Setup...	Ctrl+Alt+P
Print...	Ctrl+P
Quit	Ctrl+Q

Painting...	Ctrl+E
Raster...	
EPS...	
SWF...	

3. Configure the Export Raster dialog box.

Specify each of the items under [100Frame] and [Output Layer] as well as the export size.


Export Raster

100 Frame
● Actual Pixels
○ Pixel Dimensions
Width: 1280 Height: 960
Ratio: Drawing Paper
○ DPI 144.0
☐ Entire Image

☑ Mono Trace Line Width: 100

Output Layer
☑ Drawing ☑ Painting
☐ Sketch ☑ Raster General
☐ Correction ☑ Text
☑ Shadow Markup ☑ Direction
☑ Shooting Frame

☐ Change Outline Color

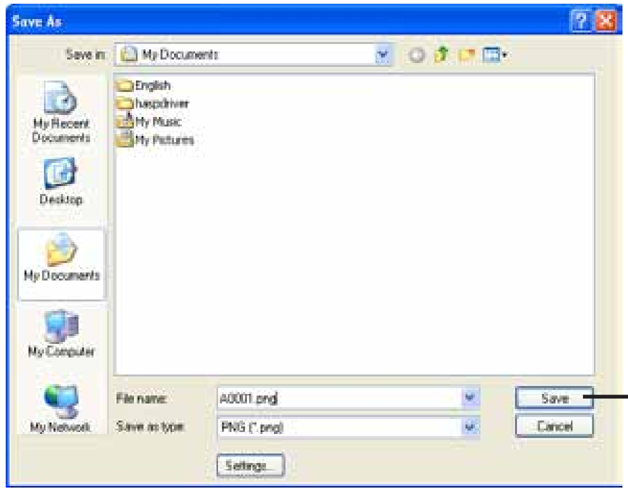
OK Cancel

[Mono Trace], [Line Width], [Change Outline Color] are present in STYLOS HD only, and replaced with [Anti-aliasing] in TraceMan HD and PaintMan HD.

Click [OK] to finish with the settings.

4. Specify the export location.

In the [Save As] dialog box that appears, specify [Save in] and [Save as type] then enter [File name].


Save As

Save in: My Documents

English
hasp driver
My Music
My Pictures

My Recent Documents
Desktop
My Documents
My Computer
My Network

File name: A0001.png
Save as type: PNG (*.png)

Save Cancel Settings...

Click [Save] to export the image data according to the settings.

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Exporting to general vector image format

Exporting on a scene basis

The procedure for exporting RETAS!PRO images to general vector image format images on a scene basis is as follows. This is convenient when you want to use the data with a different software.

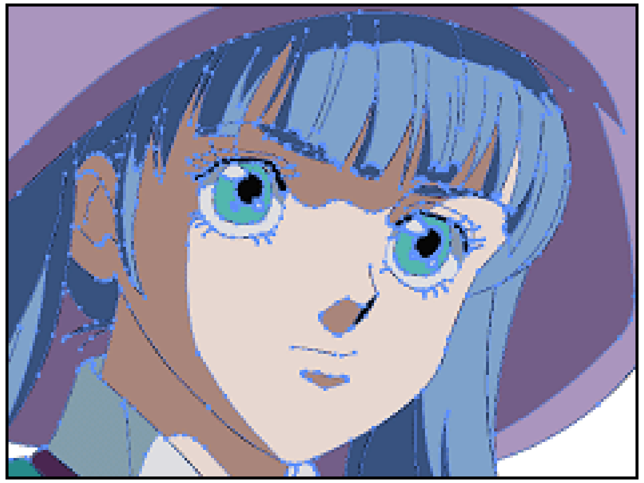
Supported export formats: EPS, SWF

1. Select the scene folder.

Select the scene folder containing the scene to export from the [File Browser], for example.

2. Select the command.

Select [Export] → [EPS...] (for exporting to EPS) or [SWF...] (for exporting to SWF) from the [File] menu.



[Example of export to EPS]

Tips

Export to general vector format is possible **only for images drawn in vector format**.

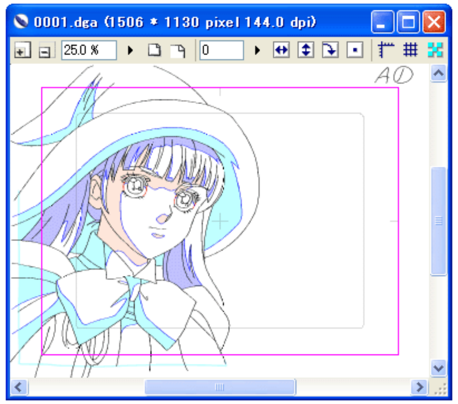
Exporting on a cel stack basis

The procedure for exporting RETAS!PRO images to general vector image format images on a cel stack basis is as follows. This is convenient when you want to use the data with a different software.

Supported export formats: EPS, SWF

1. Open the image in the Cel window.

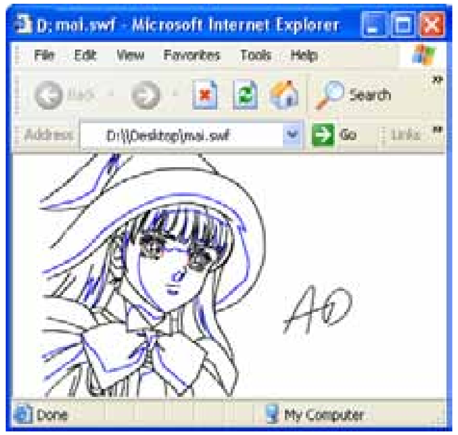
Open the image you want to export in the [Cel] window using the [File Browser], for example.



0001.dga (1506 * 1130 pixel 144.0 dpi)

2. Select the command.

Select [Export] → [EPS...] (for exporting to EPS) or [SWF...] (for exporting to SWF) from the [File] menu.



D:mai.swf - Microsoft Internet Explorer

Address D:\\Desktop\mai.swf

[Example of export to SWF]

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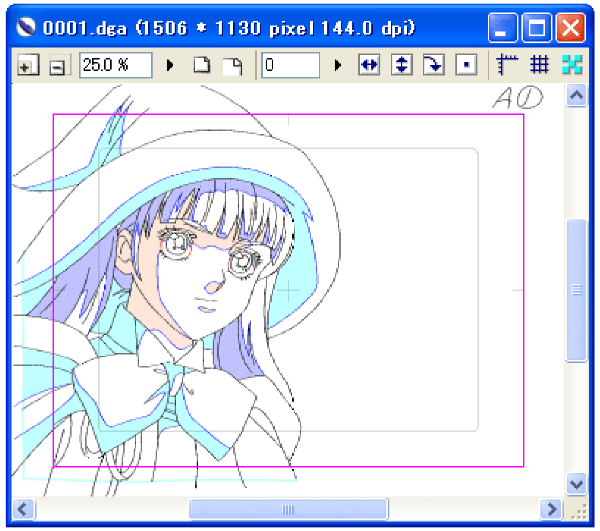
Printing

Print

The procedure for printing an image in the [Cel] window or an X-sheet is as follows.

1. Open the window.

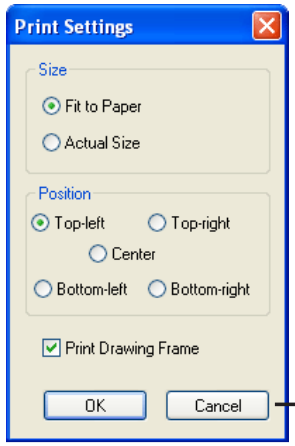
Open either the [Cel] window or the [X-sheet] window.



Example of [Cel] window

2. Configure the Print dialog box.

Select [Print Setup...] from the [File] menu. The [Print Settings] dialog box appears.



Size
● Fit to Paper
○ Actual Size

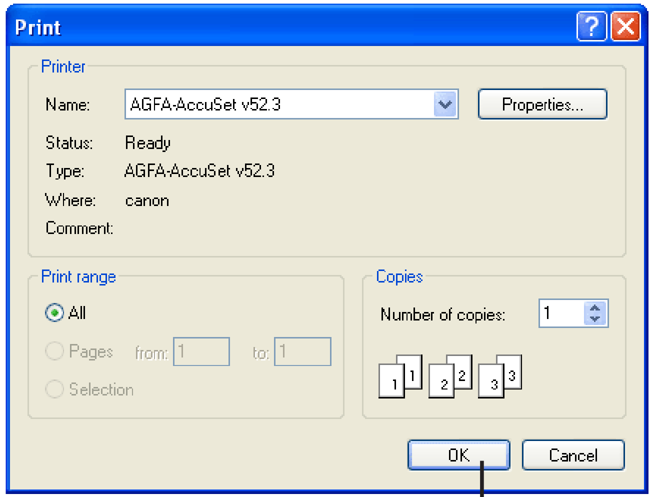
Position
● Top-left ○ Top-right
○ Center
○ Bottom-left ○ Bottom-right

☑ Print Drawing Frame

Specify [Size] and [Position], and click [OK].

3. Print.

Select [Print ...] from the [File] menu. The [Print] dialog box appears.



Printer
Name: AGFA-AccuSet v52.3
Status: Ready
Type: AGFA-AccuSet v52.3
Where: canon
Comment:

Print range
● All
○ Pages from: 1 to: 1
○ Selection

Copies
Number of copies: 1

Specify the necessary items and click [OK]. The printing starts.

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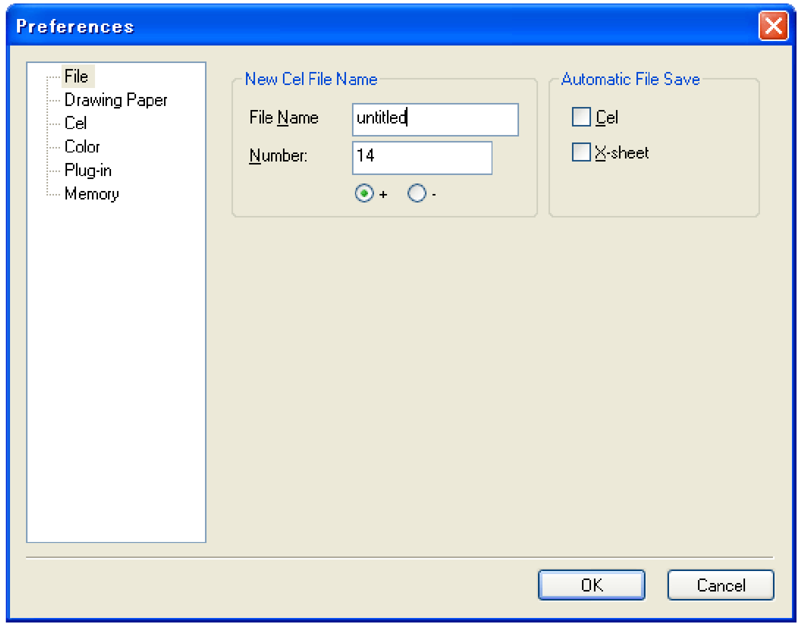
Preferences

Configuring the Preferences

This chapter describes the preferences you can configure with the dialog box that appears when you select [Settings] → [Preferences...] from the [Edit] menu (Windows), or [Preferences...] from the application menu (Macintosh).



New Cel File Name

File Name: untitled

Number: 14

● + ○ -

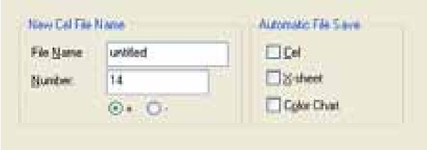
Automatic File Save

☐ Cel

☐ X-sheet

File

Allows you to configure [Cel] naming and automatic file saving related settings.



New Cel File Name

File Name: untitled

Number: 14

● + ○ -

Automatic File Save

☐ Cel

☐ X-sheet

☐ Color Chart

[New Cel File Name]

Allows you to specify the [File Name] that will be entered automatically when you create a new [Cel] window.

- **[File Name]**
  Allows you to enter an arbitrary name.
- **[Number]**
  Allows you to specify the initial sequential number that will be appended to a new [File Name]. Selecting [+] will increment the number for each new cel you create while selecting [-] will decrement the number for each new cel you create.

[Automatic File Save]

Allows you to have the file(s) you were working on saved automatically (that is, without showing the save warning dialog box) when you close the file(s) or move onto the preceding or following cel without saving.

- **[Cel]**
- **[X-sheet]**
- **[Color Chart] (Only PaintMan HD)**

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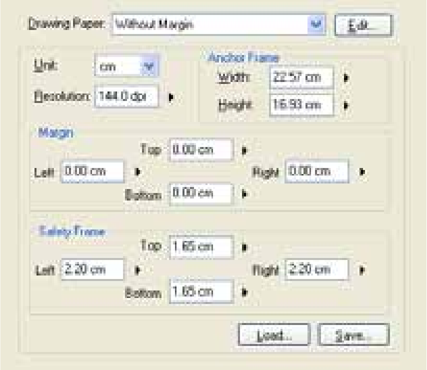
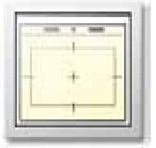
Drawing Paper

Allows you to specify the size of the drawing paper that will be shown in the [Cel] window, and its margin.



Drawing Paper: Without Margin
Unit: cm
Resolution: 144.0 dpi
Width: 22.57 cm
Height: 16.93 cm
Top: 0.00 cm
Left: 0.00 cm
Right: 0.00 cm
Bottom: 0.00 cm
Top: 1.65 cm
Left: 2.20 cm
Right: 2.20 cm
Bottom: 1.65 cm

- **[Drawing Paper]**
  Allows you to specify a drawing paper from the pull-down menu.
- **[Edit...]**
  Allows you to edit the drawing paper settings.
- **[Unit]**
  Allows you to select the unit for the drawing paper size.
- **[Resolution]**
  Allows you to specify the resolution for the drawing paper.
- **[Load...]**
  Loads a saved **[Drawing Paper Settings file] (extension: apf)**.
- **[Save...]**
  Saves the drawing paper settings as a **[Drawing Paper Settings file] (extension: apf)** to an arbitrary location.


[Drawing Paper Settings file]

Anchor Frame

Allows you to specify the [Width] and [Height] of the anchor frame.

Margin

Allows you to specify the outward distance at which the [Margin] will be positioned from the anchor frame.

Safety Frame

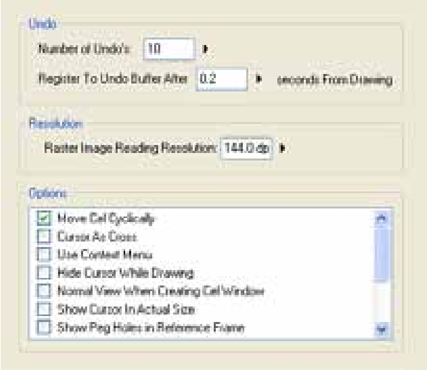
Allows you to specify the inward distance at which the [Safety Frame] will be positioned from the anchor frame.

Tips

When configuring a new drawing paper, the first thing to do is decide the [Anchor Frame] size, then decide how outside the [Anchor Frame] the [Margin] must be, and lastly decide how inside the [Anchor Frame] the [Safety Frame] must be.

Cel

Allows you to configure [Cel] window related settings.



Number of Undo's: 10
Register To Undo Buffer After 0.2 seconds From Drawing
Raster Image Reading Resolution: 144.0 dpi
☑ Move Cel Cyclically
☐ Cursor As Cross
☐ Use Context Menu
☐ Hide Cursor While Drawing
☐ Normal View When Creating Cel Window
☐ Show Cursor In Actual Size
☐ Show Peg Holes in Reference Frame

Undo

Allows you to configure the [Undo] ([Ctrl/Cmd] + [Z]) under the [Edit] menu.

- **[Number of Undo's]**
  Allows you to specify the number of [Undo] levels.
- **[Register To Undo Buffer After x seconds From Drawing]**
  Allows you to specify the time (in seconds) to save the [Undo] data temporarily.

Resolution

- **[Raster Image Reading Resolution]**
  Allows you to specify the resolution with which raster images will be loaded.

Options

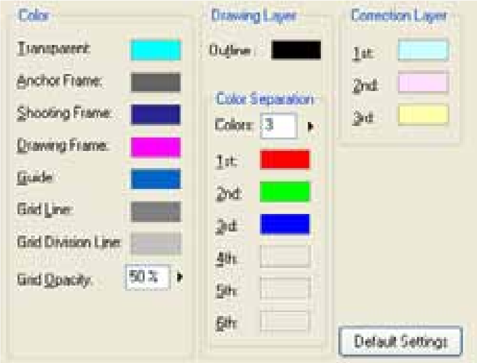
Allows you to toggle various settings using the corresponding check boxes.

- **[Include Red, Blue, And Green in Color Check] (Only PaintMan HD)**
  Includes forgotten Red, Blue, and Green (color separation lines) check in the paint check. Forgotten leak in Red, Blue, and Green are indicated using the forgotten color.
- **[Move Cel Cyclically]**
  Loops the cels, so that executing a [Next Cel] command when the cel opened in the [File Previewer] is the last returns to the first cel.
- **[Cursor As Cross]**
  Shows the mouse pointer as a cross.
- **[Use Context Menu]**
  Enables the [Cel] window context menu which will appear at mouse right click or Ctrl + click.
- **[Hide Cursor While Drawing]**
  Hides the mouse pointer when a drawing is being drawn.
- **[Actual Pixels When Creating Cel Window]**
  Opens the [Cel] window with the view in actual pixels.

- **[Show Cursor In Actual Size]**
  Shows the mouse pointer with the size specified on the [Tool Options Palette].
- **[Show Peg Holes in Anchor Frame] (Only vector drawings)**
  Shows the peg holes along with the [Anchor Frame].
- **[Round Up Pixel Smaller Than 1]**
  Rounds up pixels smaller than 1.
- **[Use mm As Tool Unit]**
  Uses mm as the unit for tools. (pixel is used when deselected)
- **[Anti-Alias Lines Being Drawn] (Only STYLOS HD)**
  Anti-aliasing is applied as a line is being drawn.
- **[Save As Ver. 5 RETAS Compatible]**
  Saves files in RETAS!PRO Ver. 5 compatible format.
- **[Scale Using Mouse Wheel]**
  Enables enlarging/reducing using the mouse wheel.

Color

Allows you to change various color settings. Color settings can be changed using the palette and/or [Color Settings] dialog box that appears when the [Color] button is clicked.



Grid Opacity: 50 %

Colors: 3

General ([Color] in TraceMan HD and PaintMan HD)

Allows you to change the color of the auxiliary lines, for example.

- **[Transparent]**
- **[Anchor Frame]**
- **[Shooting Frame]**
- **[Drawing Frame]**
- **[Guide]**
- **[Grid Line]**
- **[Grid Subdivision]**

- **[Grid Opacity]**
  Allows you to specify the [Grid Line] and [Grid Subdivision]opacity.

[Drawing Layer] (Only STYLOS HD)

Allows you to change the color settings for a drawing paper to create.

- **[Outline]**
  Allows you to change the [Outline Plane] foreground color.

[Color Separation Line] (Only STYLOS HD)

- **[Colors]**

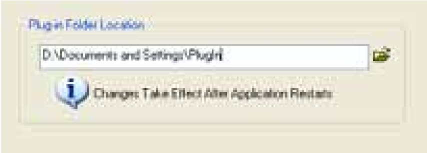
Allows you to specify the initial number of [Color Separation Line Planes].
You may also specify the colors for the planes (from [1st Plane] to [6th Plane]).

[Correction Layer] (Only STYLOS HD)

Allows you to specify the color for the [1st Plane] to [3rd Plane] of the [Correction Layer]. For the 4th plane onwards, the colors for the 1st to 3rd planes are reused sequentially.

- **[Default Settings]**
  Returns all colors to the default values.

Plug-in



D:\Documents and Settings\Plugin

Changes Take Effect After Application Restarts

[Plug-in Folder Location]

Allows you to specify the location where the plug-in folder is stored. The change becomes valid from the next time you start the application.

Tips

All RETAS!PRO applications reference the [Plug-in Folder Location]. Do not change this setting unless the plug-in folder has been moved.

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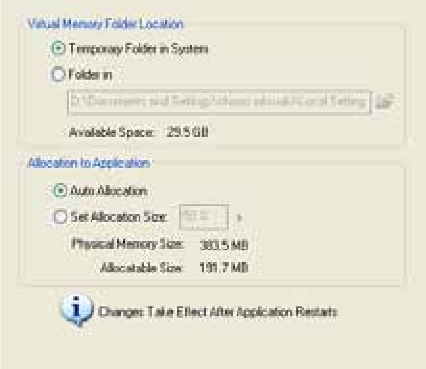
Memory

Allows you to configure memory related settings. The change becomes valid from the next time you start the application.



Virtual Memory Folder Location

● Temporary Folder in System

○ Folder in

Available Space: 29.5 GB

Allocation to Application

● Auto Allocation

○ Set Allocation Size:

Physical Memory Size: 383.5 MB

Allocatable Size: 191.7 MB

Changes Take Effect After Application Restarts

Virtual Memory Folder Location

Allows you to select the location on the HD drive where you want to create the virtual memory when the computer main memory becomes insufficient.

- **[Temporary Folder in System]**
  Creates the virtual memory in the temporary folder created by the OS.
- **[Folder in]**
  Allows you to specify a folder (other than the system temporary folder) in which you want to locate the virtual memory.
- **[Available Space]**
  Shows the remaining space on the HD drive you specified as the virtual memory folder location.

Allocation to Application

Allows you to specify the quantity of memory you want to allocate for the applications.

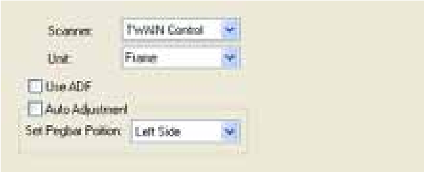
- **[Auto Allocation]**
  Allocates the memory automatically. This is the recommended setting.
- **[Set Allocation Size]**
  Allows you to specify the quantity to allocate.
- **[Physical Memory Size]**
  Shows the available physical memory capacity.
- **[Allocatable Size]**
  Shows the memory capacity used in case [Set Allocation Size] is selected.

Tips

- Be sure to check the [Available Space] on the HD drive you want to specify as virtual memory folder location. If the specified HD drive does not have enough space, the program may become unstable.
- When selecting [Set Allocation Size], be careful with the quantity you allocate. Do not allocate till the remaining capacity ([Physical Memory Size] - [Allocatable Size]) becomes too small. Allocating too much memory may destabilize the OS.

Scanner (Only TraceMan HD)

Allows you to configure scanner related settings.



Scanner: TWAIN Control

Unit: Frame

☐ Use ADF

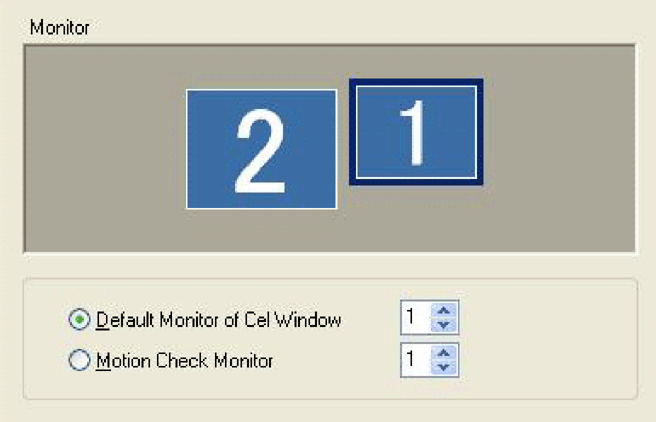
☐ Auto Adjustment

Set Pegbar Position: Left Side

- **[Scanner]**
  Allows you to select either [TWAIN Control] or [TWAIN] as the method for controlling the connected scanner.
- **[Unit]**
  Allows you to select either [Frame] or [Field] as the basic unit.
- **[Use ADF]**
  Select this check box if you want to use ADF for scanning with a scanner with ADF support.
- **[Auto Adjustment]**
  Adjusts automatically misalignments in position as well as skews at auto scan with ADF.
- **[Set Pegbar Position]**
  Allows you to select either [Left Side] or [Top] as the peg hole (pegbar) position.

Monitor (Only in multi-monitor environment)

Allows you to configure multi-monitor related settings.



● Default Monitor of Cel Window: 1

○ Motion Check Monitor: 1

- **[Default Monitor of Cel Window]**
  Allows you to select the monitor on which you want to view the Cel window by entering either of the numbers in the preview.
- **[Motion Check Monitor]**
  Allows you to select the monitor on which you want to view the Motion Check by entering either of the numbers in the preview.

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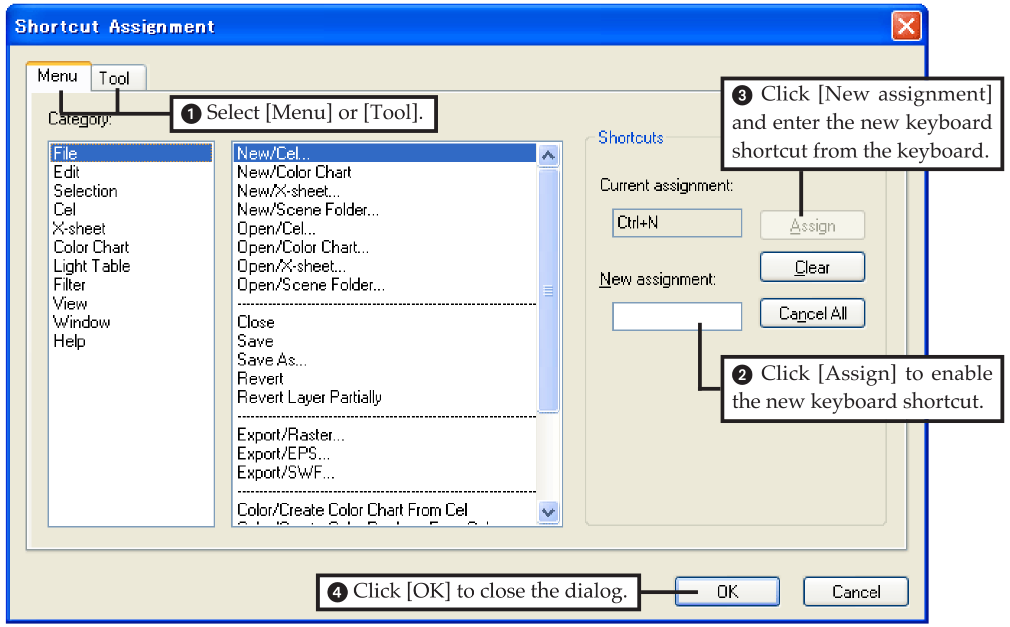
Editing the shortcuts

The procedure for editing the keyboard shortcut of a [Menu] item or [Tool] on the [Tool] Palette is as follows.

Assigning a keyboard shortcut

Select [Settings] → [Shortcut...] from the [Edit] menu. The Shortcut Assignment dialog box appears.


Shortcut Assignment
Menu
Tool
Category:
File
Edit
Selection
Cel
X-sheet
Color Chart
Light Table
Filter
View
Window
Help
New/Cel...
New/Color Chart
New/X-sheet...
New/Scene Folder...
Open/Cel...
Open/Color Chart...
Open/X-sheet...
Open/Scene Folder...
Close
Save
Save As...
Revert
Revert Layer Partially
Export/Raster...
Export/EPS...
Export/SWF...
Color/Create Color Chart From Cel
Shortcuts
Assign
Clear
Cancel All
OK
Cancel

Current assignment: Ctrl+N

New assignment:

❶ Select [Menu] or [Tool].

❷ Click [Assign] to enable the new keyboard shortcut.

❸ Click [New assignment] and enter the new keyboard shortcut from the keyboard.

❹ Click [OK] to close the dialog.

Resetting a shortcut

To reset all changes and return to the default keyboard shortcut assignments, click [Cancel All].

Tips

If a keyboard shortcut already in use is assigned to another menu item or tool, the new assignment overwrites the previous one.

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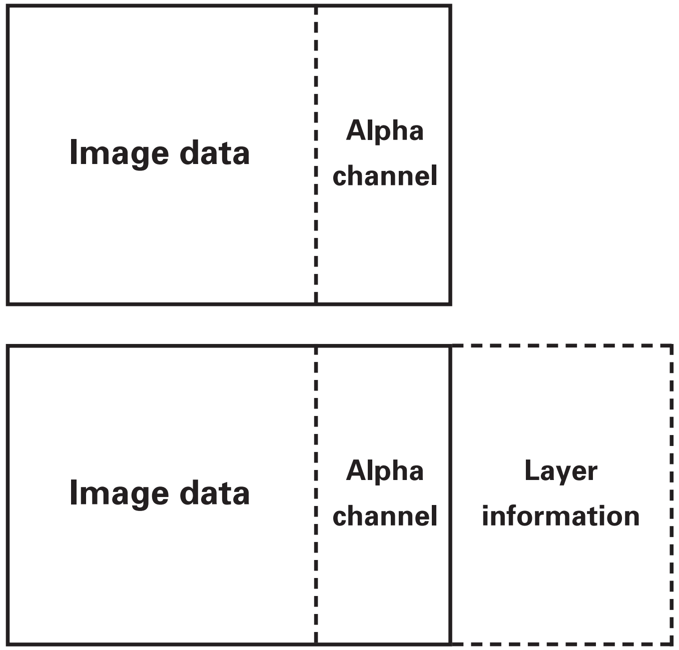
Appendix

Compatibility

Exchanging data with other software programs

Save format

RETAS!PRO HD retains information of several layers separately for the purpose of inbetween (line drawing) painting. When TraceMan HD executes a mono trace, it assigns the black lines to the outline plane and the color separation lines (red, blue, and green) to the painting plane, automatically.
And, normally unused information such as the outline plane information, is recorded at the end of the image file.



[Figure: Layer information recorded at the end of the image file]

If you load and save an image file generated with TraceMan HD with an application program other than PaintMan HD, the information added by RETAS!PRO such as the outline plane information becomes lost.

Compatibility with other software programs

Some application programs may not be able to open an image processed with RETAS!PRO as they interpret the layer information recorded by RETAS!PRO at the end of an image file as "invalid".
(Examples: Photoshop 4.0/5.0 for Windows)

Color styling

Color styling using computer

Colors on computers are expressed using either RGB or HSV. PaintMan HD can handle both. However, only RGB will be described here as it is more common.
In computers, "colors" are expressed as a mix of the three primary colors in light: Red (R), Green (G), and Blue (B).
Each of the R, G, and B colors can be expressed in 256 levels (0 to 255) when using full color. In other words, a gray with brightness of 50% can be expressed as (RBG: 128,128,128).
In Macintosh, the Color Picker expresses the colors in 65536 levels (16 bits) instead of 256 (8 bits). However, these levels can be expressed in 256 by dividing by 256.

Example:

Skin	R : 252 G : 199 B : 146
Skin (shadow)	R : 140 G : 162 B : 35
Skin (highlight)	R : 255 G : 232 B : 217
Hair	R : 252 G : 199 B : 146
Hair (shadow)	R : 157 G : 162 B : 13

Differences in coloring due to differences in the display device

Normally, color styling is done using the computer screen. However, most animations are reproduced through a video monitor or film.
Therefore, in color styling, it is important to check the colors using the final display device as color generation mechanisms are different among the different devices.

Exchanging data with other OS's

If you want to exchange data with other OS's, follow the recommendations below to name the files and avoid possible problems.

Do not use the following characters in a filename.

/ : ? * " < > |

Do not enter a filename with 32 or more single-byte characters.

Do not use double-byte characters.

Example of double-byte characters: Chinese, Japanese and Korean character, double-byte number, double-byte symbol

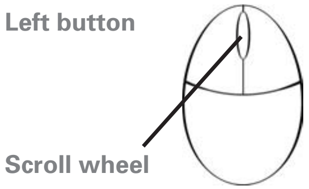
Do not use model-specific characters.

Example of model-specific characters: ① ②

In summary, put short and simple names using only "single byte characters" and "single byte numbers".

Operation using mouse and pen tablet

Name of mouse parts

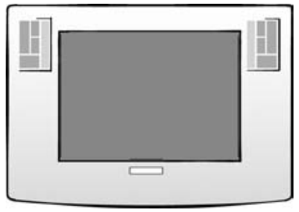


Right button

Mice used with MacOS X may have only one button. If so, use [Ctrl] + button to perform the right button operation.

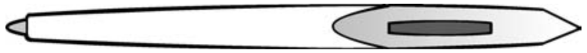
Name of pen tablet parts

Graphics Tablet



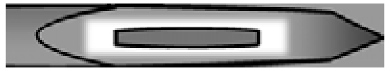
Active area is the workspace.

Stylus



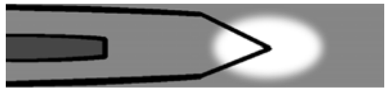
Pen-like input device.

Side switch



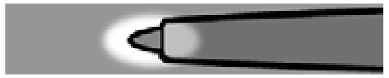
Button at the side of the stylus. The button closer to the tip is the [Side Switch], and the farther from the tip is the [Second Side Switch]. Depending on the stylus, it may have no side switches at all. The operation you can perform using the side switches can be configured using the pen tablet settings. Please note that the description in this user guide is basically limited to the default settings.

Tip switch



A switch at the tip of the pen. The switch is turned on when the tip touches the graphics tablet.

Tail switch

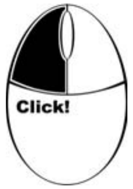


A switch at the opposite side of the tip switch. The switch is turned on when the tail touches the graphics tablet. Depending on the model, the stylus may have no tail switch.

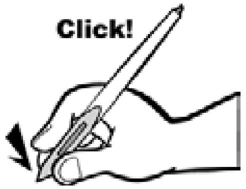
Left click

With the mouse

Press the left button once.



With the pen tablet

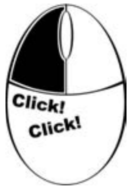


Touch the tablet "softly" with the tip of the stylus once. In this user guide, "click" refers to "left click" when stated simply.

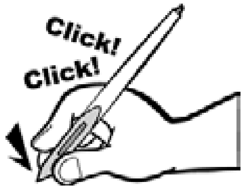
Double click

With the mouse

Press the left button twice.


Click!
Click!

With the pen tablet

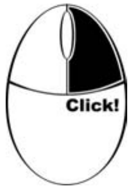

Click!
Click!

Touch the same point with the tip of the stylus twice. Or, press the second side switch on the stylus once.

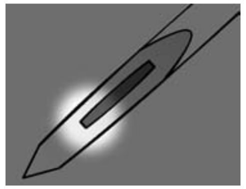
Right click

With the mouse

Press the right mouse button once.



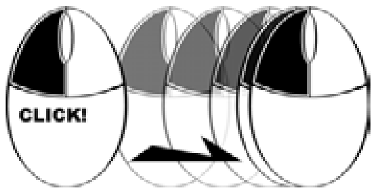
With the pen tablet



Press the stylus side switch once.

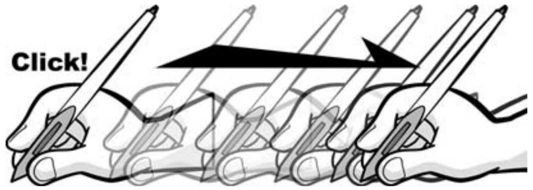
Drag

With the mouse



Move the mouse with the left button held down.

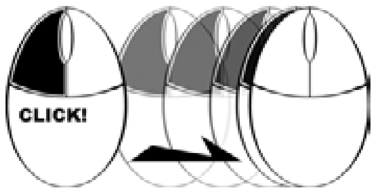
With the pen tablet



Move the stylus with the tip touching the graphics tablet.

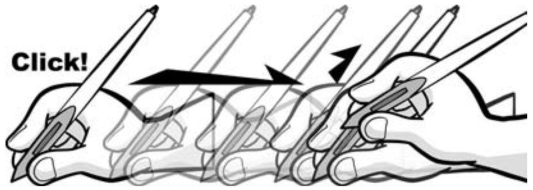
Drag and drop

With the mouse



Move the mouse with the left button held down then release the left button at the target point.

With the pen tablet



Move the stylus with the tip touching the graphics tablet and move away the tip from the graphics tablet at the target point.

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Glossary

This section describes some computer, graphical user interface (GUI), unit, and animation related terms used in RETAS!PRO.

Computer terms

Vector graphics

Generic term for referring to an image format in which shapes such as points, lines, and curves as well as other image characteristics are expressed mathematically. Characteristics of a vector image are, for example:

1) Small file size
2) Configurable output resolution
3) Not memory-intensive

EPS, the format used in Adobe Illustrator, or SWF, the format used in Macromedia Flash are examples of image formats using vector graphics.

Raster graphics

Generic term for referring to an image format in which an image is expressed as dots with color information arranged horizontally and whose number varies depending on the resolution. Characteristics of an raster image are, for example:

1) Good for delicate images such as nature or aquarelle painting
2) Easy to add effects
3) Versatile
4) Relatively easy to process using software

Raster and vector can coexist in the RETAS!PRO HD DGA and CEL formats.

BMP, the format used in Windows, PICT, the format mainly used in Macintosh, and TIFF used in various platforms are examples of image formats using raster graphics.
In RETAS!PRO, the recommended image format for raster graphics is PNG.

Explorer

File management software implemented in Windows as standard.

Finder

File management software implemented in Mac OS as standard.

Folder path

Location on the disk where a file is stored, normally composed of a volume name, folder name, and filename. Symbols such as slash (/), and colon (:) are often used to separate the volume name, folder name, and filename.

Example: /stylos_data/

Extension

Normally, a 3-letter (single byte character) code attached at the end of a filename to indicate the file type.

Keyboard shortcut (Windows) / Alias (Mac OS)

"Alias" of a file or folder. An alias is not a file in itself, like a copy. In other words, the original file is not deleted even if the alias is. Double clicking the alias opens the original file.

RGB

Refers to a system for representing colors as a combination of the three primary colors in light: Red (R), Green (G), and Blue (B). You can adjust the color, saturation, and brightness by adjusting the level of each of the primary colors.
If 8 bits are used to express the level of a primary color (256 levels) in a pixel, the total number of available colors is 16,777,216 colors (approximately 16.7 million).
Similarly, if 16 bits are used to express the level of a primary color (65536 levels), many more colors are available.

HSV

Color expression using Hue, Saturation, and Value.
HSV allows you to compose colors more intuitively than with RGB.

a (Alpha), a plane, a channel

a (Alpha) is a transparency information used for compositing images, and a plane is the part of the image file where that information is stored.

Rasterize

The process for converting an image data in vector format into raster format (bitmap).

Sort

A reordering of the information in a list based on a given criterion.

Resolution

Indicates the level of detail of a scanned raster image, a printing, or a monitor. DPI and pixel are examples of units used for expressing resolution.

Anti-Aliasing

A process that smoothes the jagged edge seen in computer-drawn curves and shapes.

Graphical User Interface (GUI) terms

Thumbnail
A small image of some 10 x 10 pixels used for identifying an image data.

Dialog box
A window in which information that is configurable by the user is shown to prompt user input.

Tab (control)
A GUI for presenting information in groups that is used when the information and/or controls to be shown is large and cannot be arranged in one window or dialog box.
Tab is used when there are two or more information and/or controls groups and is selected using an index that is normally located in the upper part of the tab.

Popup menu
A menu that appears when the mouse is clicked in a window or dialog box, and is normally used to select a command, option, or item.

Context menu
A popup menu that appears when the mouse is [right clicked] or [Ctrl] + [clicked] (Macintosh) in a window or dialog box. The menu that appears shows commands or settings that are specific to the location in which the mouse was clicked.
Context menu is a menu that is not available for all windows and dialog boxes.

Unit terms

Inch
A unit of length used mainly in the USA. 1 inch = 2.54 cm (25.4 mm)

FPS
Abbreviation of Frame Per Second that represents the number of frames in one second. It is the unit for the frame rate in animation.
Films use 24 frames in one second, so their FPS is 24 while for video (NTSC), theirs is 30.

DPI
Abbreviation of Dot Per Inch that represents the number of dots (pixels) in one inch. It is used as the unit for representing the resolution of scanned raster format images, printing, monitors, etc.

Animation terms

Scene
Unit of screen image. Normally, a 30-minute TV animation program is composed of 300 to 400 scenes.
In live action, a scene is a series of actions recorded from the time the camera's shutter button is pressed until it is released.

Conventional scene folder
In the production of animations, materials necessary for each scene are managed using a paper container called scene folder.
This conventional scene folder is not only used as container but as a record of information such as check status, person in charge, directions, etc. so that they can be conveyed to other processes together with the materials contained.

Sequence number
A "sequence" is similar to a "paragraph" in a document. That is, it is a group of images classified by "scene" or "time".

X-sheet, Sheet
A form for registering the order in which cels are to be arranged in the cel stack as well as the timings.

Color Chart, Chart
A "combination of colors (= set)" to be used in painting.

Story Board
The "project design sheet" where the outline, characters, actions, dialogue, sound effect, and length etc. for each of the sequences/scenes are detailed in order, along the story line.

Layout
The design sheet for the "scene", and therefore drawn before starting with the scene drawing. It is used to check the scene, timing, lighting direction, character/BG arrangement, etc.

Key Drawing, Key
"Key Drawing, Key" is the line drawing of a key movement.

Inbetween
"Inbetween" is an image that results from "inbetweening" which is a process where intermediate positions are drawn so that the movement from one key to the other looks continuous.

Cel
Originally, it referred to an image of a line drawing traced and then painted on celluloid (acetate).
In digital painting, it refers to a painted "inbetween".

Cel number
A sequential number assigned to keys and inbetweens. In computer-assisted key and inbetween drawing, files are named using the cel number.

Color styling
"Color styling" is the process in which colors to be used for painting each of the scenes are determined.
Sometimes, "color styling" refers to a written instruction containing directions regarding the colors to be used in painting.

Retake (direction)
Originally, is a term for indicating to "take the film again" (re-take). In the production of animation, however its meaning is wider and means "redoing" (applicable to drawing, finishing, and shooting).

Scene table, Schedule
Forms for managing the progress of an animation production.
These forms give you information about "finished processes", "person in charge", "finished date", and "number of cels produced" etc. for each scene.

Frame
(1) A reference that gives the angle of view.
Examples: "drawing frame", "safety frame", "shooting frame", "painting frame"
(2) A single image in a video.
Examples: 5 seconds 10 frames

100Frame
The size of a frame for a scene without camera-work. That is, a frame with a size of 100%. This term is mainly used for specifying the angle of view for a camera-work (Used mainly in Japan).
Example: T.U. up to 50Frame

12 Field
[12 Field] is the name given to a frame with a "width of 12 inches"h and used for a scene without camera-work. This term is mainly used for specifying the angle of view for a camera-work. (Used mainly in USA)
Example: T.U. up to 6 Field

Safety frame
The picture tube of a TV does not show the whole image recorded in a video because the screen's mask cuts part of the image.
Due to this, the part of the images that must be shown on the TV screen needs to be drawn at some distance from the borders.
That is, the part of the images that must be shown on the TV screen must be drawn inside the safety frame.

Shadow markup
A direction for indicating that an area must be painted darker than an "illuminated" area because it is a "shadow", where "shadow" is the area of darkness formed behind an object that blocks the light. Shadow markup is generally done by filling roughly the relevant parts in green.

Transparency markup
A direction for the person(s) in charge of painting to leave a part in the image transparent, that is, without painting. "Transparency markup" is generally done by marking the area with an "x" input manually.

Highlight markup
A direction for indicating that an area must be painted in a special color called "highlight color" because it is a bright area (= highlight). Highlight markup is generally done by filling roughly the relevant parts in yellow.

Color separation (line)
A border between colors; that is, a separation between an "illuminated area (normal color)" and the "shadow (darker color)" when painting the skin, for example. It is generally drawn with a color pencil (other than black).
Eventually, it is filled with either the normal or the darker color.

Effects
Abbreviation of "special effects".
Generally, it refers to operations done during finishing such as "airbrushing".
It may also refer to the special effects used in shooting.

Light table
A function for showing images semi-transparently in the [Cel] window.
In RETAS!PRO, the light table is controlled using a [Light Table] palette and used for inbetweening.

Direction
A term that refers to "production".
In RETAS!PRO, the X-sheet has a column in its upper part for the director to enter directions using text.

Cel BG
A normal BG is drawn on paper and painted with watercolors. "Cel BG" refers to a BG that is drawn based on the inbetweens and have the same finish as the cel.
It is used as a BG inbetween.

Model sheet
A list of characters used as a guide for drawing.

Center line
A line that passes through the center of a vector line.
Generally, it is invisible. However, it can be checked on the [Cel] window using the [Show Center Line] command.

Start & End points
[End points] are the points that mark the start or ends of a vector line.

PaintMan HD screenshot

Cel window
A window for editing (drawing) images. This window is equivalent to the layout paper or inbetween drawing paper used when working with paper.

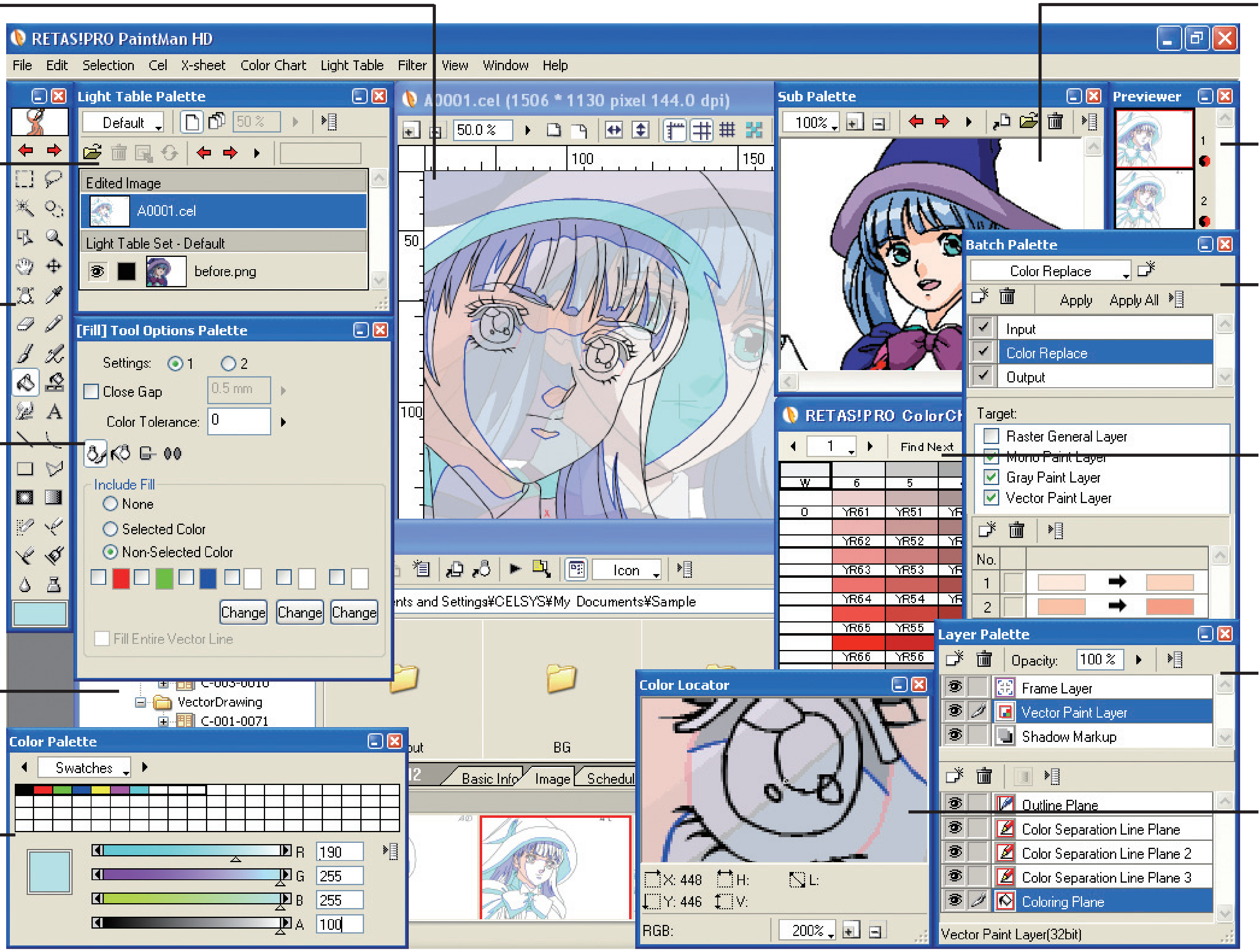
Light table palette
A palette for operating the Light Table which is used to show other images behind the current image, semi-transparently.

Tool Palette
A palette that is a collection of tools used for painting, for example.

Tool Options Palette
A palette for setting the options for each of the tools.

File Browser
A window for browsing image files and managing scene folders.

Color Palette
This palette is for selecting and adjusting colors.


RETAS!PRO PaintMan HD
File Edit Selection Cel X-sheet Color Chart Light Table Filter View Window Help
Light Table Palette
Default
Edited Image
A0001.cel
Light Table Set - Default
before.png
A0001.cel (1506 * 1130 pixel 144.0 dpi)
50.0 %
Sub Palette
100%
Previewer
Batch Palette
Color Replace
Apply Apply All
Input
Color Replace
Output
Target:
Raster General Layer
Mono Paint Layer
Gray Paint Layer
Vector Paint Layer
No.
RETAS!PRO ColorCh
Find Next
[Fill] Tool Options Palette
Settings: ● 1 ○ 2
☐ Close Gap 0.5 mm
Color Tolerance: 0
Include Fill
○ None
○ Selected Color
● Non-Selected Color
Change Change Change
☐ Fill Entire Vector Line
VectorDrawing
C-001-0071
Icon
nts and Settings¥CELSYS¥My Documents¥Sample
BG
Basic Info Image Schedul
Color Palette
Swatches
R 190
G 255
B 255
A 100
Color Locator
X: 448 H: L:
Y: 446 V:
RGB:
200%
Layer Palette
Opacity: 100 %
Frame Layer
Vector Paint Layer
Shadow Markup
Outline Plane
Color Separation Line Plane
Color Separation Line Plane 2
Color Separation Line Plane 3
Coloring Plane
Vector Paint Layer(32bit)

Sub Palette
A palette for viewing and picking colors from an already painted image (model).

File Previewer
A palette for switching the sequentially numbered files to work with.

Batch Palette
A palette for executing batch processing where the same processing is repeated for multiple data.

Color Chart
A windows for registering frequently used colors classified and in order.

Layer Palette
A palette for configuring the layer setting, such as the order in which they are to be overlapped, whether a particular layer should be visible or hidden, etc.

Color Locator
A palette for showing a part of the Cel window enlarged in real time.

List of commands applicable to PaintMan HD layers

(*) In one cel, it is only possible to have either mono paint layer, raster paint layer, or vector paint layer.

Layer	**Raster general**	**Mono paint**	**Gray paint**	**Vector paint**	**Text**	**Direction text**	**Direction**	**Frames**	**Vanishing Point**	**Adjustment**	**Selection**
Maximum number of layers per cel	Multiple	1 (*)	1 (*)	1 (*)	Multiple	Multiple	Multiple	1	Multiple	Multiple	Multiple
[Tool Palette]											
Plane Switch	○	○	○	○	○	○	○	○	○	○	○
Previous Cel	○	○	○	○	○	○	○	○	○	○	○
Next Cel	○	○	○	○	○	○	○	○	○	○	○
Rectangle selection	○	○	○	○	○	○	○	○	○	○	○
Lasso	○	○	○	○	○	○	○	○	○	○	○
Magic wand	○	○	○	○	×	×	○	×	×	×	○
Selection brush	○	○	○	○	○	○	○	○	○	○	○
Object selection	○	○	○	○	○	○	○	○	○	○	○
Zoom	○	○	○	○	○	○	○	○	○	○	○
Hand	○	○	○	○	○	○	○	○	○	○	○
Move	○	○	○	○	○	○	○	○	○	○	○
Light table	×	×	×	×	×	×	×	×	×	×	×
Eyedropper	○	○	○	○	○	○	○	○	○	○	○
Eraser	○	○	○	○	×	×	○	×	×	×	○
Pencil	○	○	○	×	×	×	○	×	×	×	○
Brush	○	○	○	○	×	×	○	×	×	×	○
Airbrush	○	○	○	×	×	×	○	×	×	×	○
Fill	○	○	○	○	×	×	○	×	×	×	○
CloseFill	○	○	○	○	×	×	○	×	×	×	○
Extender Tool	○	○	○	○	×	×	○	×	×	×	○
Text	○	○	○	○	○	○	○	○	○	○	○
Line	○	○	○	○	×	×	○	×	×	×	○
Curve	○	○	○	○	×	×	○	×	×	×	○
Shape	○	○	○	○	×	×	○	×	×	×	○
Polyline	○	○	○	○	×	×	○	×	×	×	○
Airbrush Effect	○	○	○	○	×	×	○	×	×	×	×
Gradient	○	○	○	○	×	×	○	×	×	×	×
Dust Filter	○	○	○	×	×	×	○	×	×	×	○
Join Line	○	○	○	○	×	×	○	×	×	×	○
Change Width	○	○	○	○	×	×	○	×	×	×	○
Color Replace	○	○	○	○	×	×	○	×	×	×	×
Blur	○	○	○	×	×	×	○	×	×	×	×
Stamp	○	○	○	×	×	×	○	×	×	×	○
Foreground Ccolor	○	○	○	○	○	○	○	○	○	○	○
[Edit] menu											
Undo	○	○	○	○	○	○	○	○	○	○	○
Redo	○	○	○	○	○	○	○	○	○	○	○
Scene	○	○	○	○	○	○	○	×	×	×	○
Copy	○	○	○	○	○	○	○	×	×	×	○
Paste	○	○	○	○	○	○	○	×	×	×	○
Paste to Selected Plane	○	○	○	○	○	○	○	×	×	×	○
Convert & Paste	○	○	○	○	○	○	○	×	×	×	○
Clear	○	○	○	○	×	×	○	×	×	×	○
Select All	○	○	○	○	○	○	○	○	○	○	○
Deselect	○	○	○	○	○	○	○	○	○	○	○
Reverse Selection	○	○	○	○	○	○	○	○	○	○	○
Snap → Guide	○	○	○	○	○	○	○	○	○	○	○
Snap → Grid	○	○	○	○	○	○	○	○	○	○	○
Fill	○	○	○	○	×	×	○	×	×	×	○

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Layer	**Raster general**	**Mono paint**	**Gray paint**	**Vector paint**	**Text**	**Direction text**	**Direction**	**Frames**	**Vanishing Point**	**Adjustment**	**Selection**
CloseFill	○	○	○	○	×	×	○	×	×	×	○
Airbrush Effect	○	○	○	○	×	×	○	×	×	×	×
Replace Line Color	○	○	○	○	×	×	○	×	×	×	×
Cut Out	○	○	○	○	○	○	○	○	○	○	○
Transfer to Plane	×	○	○	×	×	×	×	×	×	×	×
Repair Line → Join Line	○	○	○	○	×	×	○	×	×	×	○
Repair Line → Change Width	○	○	○	○	×	×	○	×	×	×	○
Transform → Scale	○	○	○	○	×	×	○	×	×	×	○
Transform → Free Rotation	○	○	○	○	×	×	○	×	×	×	○
Transform → Numeric	○	○	○	○	×	×	○	×	×	×	○
Transform → Flip Horizontal	○	○	○	○	×	×	○	×	×	×	○
Transform → Flip Vertical	○	○	○	○	×	×	○	×	×	×	○
[Selection] menu											
Select All	○	○	○	○	○	○	○	○	○	○	○
Deselect	○	○	○	○	○	○	○	○	○	○	○
Reverse Selection	○	○	○	○	○	○	○	○	○	○	○
Select Foreground Color	○	○	○	○	×	×	○	×	×	×	○
Add Foreground Color to Selection	○	○	○	○	×	×	○	×	×	×	○
Select Other than Foreground Color	○	○	○	○	×	×	○	×	×	×	○
Select Out-of-Range Color...	○	○	○	○	×	×	○	×	×	×	○
Conversion → Convert Selection To Layer	○	○	○	○	○	○	○	○	○	○	○
Conversion → Convert Layer To Selection	×	×	×	×	×	×	×	×	×	×	○
Conversion → Add Layer To Selection	×	×	×	×	×	×	×	×	×	×	○
Conversion → Delete Layer From Selection	×	×	×	×	×	×	×	×	×	×	○
[Cel] menu											
Layer → New...	○	○	○	○	○	○	○	○	○	○	○
Layer → Copy	○	×	×	×	○	○	×	○	○	○	○
Layer → Delete	○	○	○	○	○	○	○	○	○	○	○
Layer → Delete Hidden Layer	○	○	○	○	○	○	○	○	○	○	○
Layer → Convert...	○	○	○	○	○	○	○	○	○	×	○
Layer → Properties...	○	○	○	○	○	○	○	○	○	○	○
Layer → Settings...	×	×	×	×	○	○	×	○	○	○	×
Plane → New...	×	○	○	○	×	×	○	○	×	○	×
Plane → Copy	×	×	×	×	×	×	○	○	×	○	×
Plane → Delete Plane	×	○	○	○	×	×	×	×	×	×	×
Plane → Convert...	○	○	○	○	×	×	×	×	×	×	×
Plane → Properties...	○	○	○	○	○	○	○	○	○	○	○
Plane → Settings...	×	×	×	×	○	○	×	○	○	○	×
[Filter] menu											
Sharpen → Sharpen (Heavy)	○	○	○	×	×	×	○	×	×	×	×
Sharpen → Sharpen (Light)	○	○	○	×	×	×	○	×	×	×	×
Sharpen → Unsharp Mask...	○	○	○	×	×	×	○	×	×	×	×
Blur → Blur (Heavy)	○	○	○	×	×	×	○	×	×	×	×
Blur → Blur (Light)	○	○	○	×	×	×	○	×	×	×	×
Blur → Gaussian Blur...	○	○	○	×	×	×	○	×	×	×	×
Auto Contrast	○	○	○	×	×	×	○	×	×	×	×
Contrast/Brightness → Apply	○	○	○	×	×	×	○	×	×	×	×
Tone Curve → Apply	○	○	○	×	×	×	○	×	×	×	×
Level Adjust → Apply	○	○	○	×	×	×	○	×	×	×	×

Layer	**Raster general**	**Mono paint**	**Gray paint**	**Vector paint**	**Text**	**Direction text**	**Direction**	**Frames**	**Vanishing Point**	**Adjustment**	**Selection**
Hue/Saturation → Apply	○	○	○	×	×	×	○	×	×	×	×
Color Balance → Apply	○	○	○	×	×	×	○	×	×	×	×
Dust Filter	○	○	○	×	×	×	○	×	×	×	○
Output Layers (for layer conversion)											
Raster general	×	○	○	○	○	○	○	×	×	×	○
Mono paint	○	×	○	○	○	○	○	×	×	×	○
Gray paint	○	○	×	○	○	○	○	×	×	×	○
Text	×	×	×	×	×	○	×	×	×	×	×
Direction text	×	×	×	×	○	×	×	×	×	×	×
Direction	○	○	○	○	○	○	×	×	×	×	○
Frames	×	×	×	×	×	×	×	×	×	×	×
Vanishing Point	×	×	×	×	×	×	×	×	×	×	×
Adjustment	×	×	×	×	×	×	×	×	×	×	×
Selection	×	×	×	×	×	×	×	×	×	×	×
Retainable planes											
Raster plane	○	○	○	○	×	×	○	×	×	×	×
Outline	×	○	○	○	×	×	×	×	×	×	×
Painting	×	○	○	×	×	×	×	×	×	×	×
Coloring plane	×	×	×	○	×	×	×	×	×	×	×
Color Separation Line	×	×	×	○	×	×	×	×	×	×	×
Text	×	×	×	×	○	○	×	×	×	×	×
Anchor frame	×	×	×	×	×	×	×	○	×	×	×
Vanishing Point	×	×	×	×	×	×	×	×	○	×	×
Adjustment	×	×	×	×	×	×	×	×	×	○	×
Selection	×	×	×	×	×	×	×	×	×	×	○

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